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ABSTRACT

According to recent census figures, 10% of today's population are over 65 years old. It has often been stated that individual learning needs and capabilities decline with age. To challenge this idea, a study was conducted to gather information about older adults, their learning interests, activities, and obstacles. Four hypotheses were tested through a series of interviews with 256 adults (55 and over) in Nebraska. The interview schedule was tested for reliability and validity. Data were analyzed utilizing tables with frequencies, percentages, and mean scores as well as a crossbreak analysis and t-test of significance for testing some hypotheses. Data from the study revealed a need for more suitable continuing education programs based on the following findings: (1) obstacles to learning selected most often were "don't like to go out at night." "not enough time," "cost," "home responsibilities," and "job responsibilities;" and (2) courses selected as an indication of learning interests included "Stretching Your Retirement Dollar," "Tax Benefits for Older Americans," "Outdoor Flora", "Medical Care in the Retirement Years," and "Laws Affecting the Aged." The study's design, findings, recommendations, and implications of the study are presented. Data collection materials, miscellaneous tables, and comparison data on learning projects are appended. (Author/EC)

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THE OLDER ADULT AND LEARNING

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FOREWARD

Much has been written about the older adult and learning. A large number of such writings have focused on the premise that learning needs and capabilities decline with age. However, recent research and discussion have been centered around a changing theme: declines in learning abilities and interests may be considerably less than has been historically thought. In fact, there is some evidence now available that shows older adult learners outstripping younger learners in certain areas of endeavor.

The purpose of the research presented in this report was to obtain an even greater understanding of the older learner. Consequently, learning interests, obstacles, and actual activities were examined. The Adult and Community Education Section of the State Department of Education supported, in part, this research with the expectation that additional information about a particular group of adults would eventually benefit the state's entire adult education program. Thus, the encouragement and support of Dr. Leonard Hill is greatly appreciated.

The work of Marsha Fangmeyer and Jim Gingles in assisting with the data analysis is highly appreciated. In addition, the excellent work of Olie Ahlquist, Judy Amber, Frank Bomberger, Romeo Guerra, Vern Jacobs, Neal Jennings, and Gary Whiteley -- graduate student interviewers -- is gratefully acknowledged. The scope of this research would have been greatly limited without the assistance of these excellent students. Finally, the cooperation of all those individuals interviewed was most rewarding. Hopefully, this report will repay them for their efforts and contribute to better educational opportunity for all older adults in the State of Nebraska.

Roger Hiemstra
Project Coordinator

September 1, 1975

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CHAPTER 1

INTRODUCTION

General Statement

The largest minority group in the nation today is the elderly and it is proportionately growing larger each year. Yet equal educational opportunity for the elderly at this point in time is more a myth than a reality. Out of "the 1971 White House Conference on Aging" came a very powerful statement related to education and the aging:

> Education is a basic right for all persons of all age groups. It is continuous and henceforth one of the ways of enabling older people to have a full and meaningful life, and a means of helping them develop their potential as a resource for the betterment of society.[1]

Few individuals would think that an older citizen should be denied an equal education, but the fact remains a very small percentage of the individuals over the age of 55 do involve themselves in formal educational programs (see Table 1). However, a review of almost any flyer or catalog describing the adult education programs will reveal an increasing desire to provide courses and activities to older people.

If a variety of educational opportunities are available to older citizens, the question may be raised as to why the elderly are not more involved. Are they just not interested, or are there subtle discriminating factors that inhibit equality in educational opportunities? Before dealing with such a question, a closer look at the older American is in order.

Of the total population of 210 million, according to recent census information, 21 million Americans are over the age of 65. Having this large a percentage of our society 65 or older is only a current day phenomenon, and it appears that the percentage will increase. The 65 and over population has been growing faster than

Table 1 Participants in Formal Adult Education Programs As a Percentage of the Total Eligible Population by Age United States, May 1969.

Age	Population in each age group	% who participated in adult education
17-24	24,800,000	18.0
25-34	23,600,000	18.2
35-44	22,700,000	13.5
45-54	22,700,000	9.4
55-64	17,900,000	4.5
65 and over	18,600,000	1.6

Imogene E. Oakes, Participation in Adult Education, 1969, Initial Report (Washington, D.C.: U.S. Government Printing Office, U.S. Department of Health, Education, and Welfare, National Center for Educational Statistics, 1971), p. 11.

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the rest of the population for several decades, there now exist seven times as many people over the age of 65 as there were in 1900. With further advances in the medical field, the number of years a person 65 years of age would expect to live could double or triple.

California, New York, Pennsylvania, Florida, Illinois, Ohio, Texas and Michigan account for over 50% of the older population in the United States. Over 60% live in metropolitan areas, mostly in the city center areas. Some 40% of the older population live in non-metropolitan areas, mostly living in small towns. Over 95% live within the community, and not in an institution. Of this group, over 25% live alone or with individuals other than relatives. There are approximately 140 women to every 100 men, and 4 widows to every widower, in the over 65

age group.[2]

Transportation and mobility is often a problem for this age group. Simple shopping excursions and medical visits can create major problems due to lack of adequate travel facilities for the elderly. Of the total elderly population living outside of institutions, 86% have some chronic health condition. While the majority of the chronic conditions do not interfere to a great extent with mobility, 6% of the olderly population need to be helped by another person, and 5% are housebound. Some of the major chronic conditions affecting the elderly are arthritis, rheumatism, hearing impairment, and digestive problems. About 90% of the elderly population wear some form of corrective lens, and 5% wear hearing aids.[3]

Many of the elderly are subjected to inadequate housing, poor nutrition, and sub-standard health care due to a low income level. In 1972, the average income of a retired couple was $4,967 while 53% of all individuals living alone or with non-relatives made less than $2,500.[4] Although in the general population the number of individuals classified as poor is decreasing, the elderly poor compose a slowly growing proportion of the total.

As of 1972 there were more than 2 million individuals over the age of 65 who were "functionally illiterate". More than 12% of the total elderly population had completed less than 5 years of school. Of the racial minorities included in this group, 38.7% had completed less than 5 years of school. Only 32% of the total elderly sample had completed four years of high school, with only 12.9% of the minority group members having completed four years of high school. Only 7% of all individuals over the age of 65 have college degrees.[5]

The Nebraska Commission on Aging's series "Aging in Nebraska" pointed out some interesting facts about the elderly in Nebraska. The past century has seen

persons 65 and over grow from 1% of the Nebraska population to nearly 12.4%. The past decade has seen a 43.1% increase in women aged 74 and older which makes them, percentage wise, the fastest growing segment of the Nebraska population. Between the years 1960 to 1970, an average of 5.3 persons age 65 and older joined the Nebraska population each day.[6] While many states, as previously discussed, have more total numbers of elderly than Nebraska, on a percentage basis Nebraska and Iowa are tied for second for having the highest proportion of its population over the age of 65. Only Florida has a higher percentage total.[7]

Problem Setting

There has been a great amount of literature about the older adult and learning, but much of this material seems to be based more on myth than reality. Many authors have thought that learning needs as well as other needs and capabilities decline with age. Recent research has challenged this assumption, centering around the premise that such declines might be considerably less than has been historically thought. In fact, there is some evidence now available showing that older learners can outstrip younger learners in certain areas. Havighurst, for example, has pointed out that learning is necessary throughout life because of continuously new developmental task needs with life.[8] As a matter of fact, some of the greatest changes in life and needs for continual adaptation come with such events as retirement, death of spouse, and declining health.

Thus, a variety of stereotypes about the elderly are rigorously being challenged. McClusky refers to these as myths that are being dispelled. He suggests that the elderly, in general, are active, intelligent, and involved people who have positive feelings about themselves and their potential.[9]

A theory in direct opposition to classifying the elderly as individuals with

declining needs and capacities is a theory that has been called the "activity theory,"[10] The main assumption of this theory is that an elderly person's morale will be high as long as he or she is able to stay active even if faced with role reductions and changes. This would mean replacing lost roles with other new areas of interest and activities. This suggests that there is even a greater need for continuing education in the elderly years than in the younger years.

Several other researchers have found additional reasons for supplemental education to start at approximately age 55 and extend on through the elderly years. For example, a longitudinal study uncovered data that suggests a process of disengagement does occur in later years, but that psychological disengagement proceeds physical disengagement from society by as much as ten years.[11] Another finding was that a measure of life satisfaction not only remained stable for those actively involved in various activities during their elderly years, but tended to increase with age for many individuals.[12]

Thus, it appears as though those individuals who remain active retard the advent of the disengagement process and experience continued or increasing life satisfaction. It is suggested here, therefore, that a functional adult education program for the older adult learner is a societal necessity.

Purpose of the Study

This research project was based in part on the work completed by Allen Tough[13] and some research by Hiemstra.[14] Tough and his associates, found that by defining learning as a series of related learning episodes totaling at least seven hours of effort within a six month period, the typical adult they surveyed annually spends 700 hours in learning activities. Deciding and planning, traveling time to a learning activity, and evaluating personal progress were included in their definition.

Coolican reported on five similar follow-up studies with various populations.[15] These studies revealed that the range of average times spent annually in learning varied from 244 hours for young mothers to 1244 for (male) professionals.

Hiemstra studied both inhibitors to participation and learning interests in adults over 65. This study revealed that transportation limitations and a dislike of going out at night were the top reported factors affecting participation in adult education activities. When asked to select learning activities they might participate in if the various participation problems could be overcome, the respondents showed a much greater preference for instrumental categories of learning as compared to expressive categories. The research to be reported here combined the approaches and areas of focus in both of the above studies.

Consequently, the primary purpose of this study was to secure a better understanding of the learning interests, activities, and obstacles of older adults, 55 years of age and older. It is anticipated that such information will help adult educators in Nebraska and in other states plan and implement better programs of education for the older adult.

Questions to be Answered

The following questions served as guides for the study:

1. What are the obstacles older adults perceive as limiting to their participation in learning activities?
2. What are the relationships among various demographic/biographic characteristics and perceived obstacles to learning?
3. What are the perceived preferences for instrumental and expressive forms of education?
4. What are the relationships among various demographic/biographic characteristics and the perceived preferences?

5. How much learning activity is undertaken by older adults in a given year?
6. What is the nature of such learning activity?
7. What are the relationships among various demographic/biographic characteristics and the amount of learning undertaken in a year?
8. What are the relationships between instrumental or expressive preferences and the amount of learning undertaken in a year?

In Chapter IV the questions will provide guidelines for the display, comparison, and discussion of findings.

Limitations of the Study

In a study of this nature one major limitation will always be the representativeness of the sample. As will be discussed in Chapter III, an attempt was made to include an element of randomness in the selection of respondents. However, such factors as voter registration card biases, the selection of individuals in residences designed exclusively for the elderly, and obtaining a minority group population contained limitations that prevented a totally random and representative sample. Certainly the entire State of Nebraska was not represented.

Each interviewer was trained in an identical manner. However, one limitation would be the consistency among interviewers in asking questions, interpreting responses, and recording responses. For purposes of the study it was assumed that interviewers would work in as professional a manner as possible and that respondents would answer questions to the best of their ability.

A final limitation dealt with the fact that there exists an incomplete theoretical framework for asking relevant questions pertaining to older adults and learning. As will be described in the next chapter, a great deal of information presently exists; however, more information is needed and some of what exists conflicts with other information. Consequently, although research hypotheses are described in later

chapters, it is assumed that follow-up research will be required to better understand the areas addressed in this study.

Definition of Terms

Activity - The term "activity" is utilized to describe any general pursuit of learning that is achieved through a sequence of progressive tasks and/or actual experiences.[16]

Adult - Any person who has reached the maturity level where he or she has assumed responsibility for himself or herself and sometimes others and who has assumed a productive role in the community.[17]

Adult Education - Relationship between a student and an educational agent in which the agent provides, facilitates, and/or supervises a series of related learning experiences for the student.[18]

Clientele - Refers to the person or types of persons benefitting from a specific educational service -- the customer.

Continuing Education - "That idealistic and timeless conceptual thread that connects all deliberate efforts to help the human organism learn through life . . . It has become common for adult educators who function within the (formal) context of colleges and universities to refer to their activities as continuing education."[19]

Course - Term used to designate a specific type of adult learning which has an identifiable purpose, content, structure, and time period.

Expressive education - Courses designed to help older adults increase the enjoyment of life, to add new experiences, and to express themselves.[20]

Facilitator - An educational change agent who makes particular action possible by being available as resource, information source, and/or learning director.

Instrumental education - Basic or skill mastery courses necessary for the effective mastery of the aging process.[21]

Knowledge and skill - The entire range of behavioral changes -- cognitive, attitudinal, perceptive, feeling, and psychomotor.

Learning - The acquisition of knowledge, attitudes, or skills and the mastery of behavior in which facts, ideas, or concepts are made available for individual use.[22]

Learning project - A series of clearly related learning efforts adding up to at least seven hours of effort within a six month period. The last 12 months from the day of the interview will be the time period in which projects will be examined. Deciding and planning, traveling time to a learning activity, and evaluating personal progress will also be considered as part of the learning project time.[23]

Learning for self-fulfillment - The projects to be included here are efforts at learning for leisure, arts and crafts, hobbies, and recreation; included, too, would be learning related to music, art, dance, theatre, religion, ethics, or moral behavior.

Lifelong Learning - A process of learning that continues throughout life.[24] It is usually thought of in connection with the need to learn throughout one's lifetime in order to cope with a constantly changing society.

Non-Credit Adult Education - An educational process which does not grant academic credit for application to a specific academic degree.

Occupational, vocational, and professional competence - This includes learning related to preparing to enter the labor market, on-the-job training, retraining for a shift in occupation, and also basic and literacy education. Graduate courses taken by a teacher to meet state requirements would be counted here.

Personal or family competence - This includes learning for the individual's role as parent, spouse, and homemaker; it also includes learning related to mental and physical health. An extensive counseling session on estate planning or family finances would be included here.

Program - An activity which is planned and organized with specific objectives.

Social and civic competence - This area covers the individual's role as a responsible citizen including voting and politics, current events, community government and development, pollution, and ecology.

Outline of the Study

The second chapter reviews literature related to inhibitors to learning, learning needs and learning activities. Some more general reports concerning the projected growth of educational projects related to the elderly are also described.

Chapter III describes the design of the study and includes a methodological look at: (1) population, (2) instrumentation, (3) the interviewing process, (4) how validation/reliability was accomplished, and (5) how the data were analyzed.

Chapter IV contains a display and discussion of the study findings, including a testing of the study's hypotheses. Tables will be included where they help explain or clarify the data.

The final chapter discusses the implication of the findings and attempts to draw some general conclusions. A brief summary of the findings with suggested implications for further research are also included.

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CHAPTER II

REVIEW OF SELECTED LITERATURE

Introduction

Elderly people have been stereotyped in many ways varying from culture to culture and from century to century. In the American society the general perception of the elderly has been essentially negative. Old age is often seen as a period characterized with ever increasing social withdrawal and isolation. The elderly individual is seen as a passive physical and psychologically dependent individual who is oriented toward the past rather than the future.[1] It was found in one research study that young people of college age often misperceive that elderly individuals will be resentful of youth, more often than not in need of assistance, overly interested in their families, and preoccupied with their own death.[2]

As was suggested in the first chapter, most of the above stereotypes and many others are being disproven with research. However, it can still be theorized that negative attitudes permeating our culture have affected elderly individuals in their attempts to be successful in conventional classrooms. To add to this problem it is suggested that only on very few occasions have educational opportunities been directed at real needs and goals of the elderly. Instead, "we tend to place them in 'playpens' by providing recreation . . . while doing almost nothing to furnish them with the means to keep mentally alert."[3]

Having now obtained zero population growth, the average age of the United States population will rise. Two other factors contributing to the rise in average age are low immigration levels and a reduction in the death rate. All of these factors point to a need for an adjustment of attitude on society's part in relation to the elderly, an attitude adjustment that would specifically include those societal members working with the elderly in some educational capacity.

In addition, it seems safe to assume that the educational level of all age groups will rise with time because of increased opportunity and because of the greater educated young growing older. Thus, it should not be too presumptuous to predict a dramatic increase in demand by the elderly for greater educational opportunities in the next few years. Hopefully, this research will help adult educators understand more about older people and their learning needs, interests, and problems.

Inhibitors to Learning

There are a variety of known or believed inhibitors to learning and educational activity relative to the elderly person. Some of the cognitive inhibitors relate to such beliefs that the elderly face declining memory potential, increasing inabilities to perform paired associate learning tasks, slowness in developing conditional responses, and difficulties in sorting out learning that is related to long, sequentially-related learning tasks. On the other hand, others believe when such factors as time requirements are removed these problems disappear.[4] Thus, more and continued research will be required before such beliefs can become facts with which a learning facilitator can deal.

Many authors feel more comfortable talking about non-cognitive inhibitors, although the evidence on such factors is probably not even as sound as what is known about the cognitive area. Some of the non-cognitive factors discussed include slowness due to physiological reasons (e.g., hearing and vision problems), lack of interest, and lack of educational attainment. Other inhibitors described in the literature involve transportation problems, fear of going to learning activities that are held in the evening, lack of awareness of what is available, prohibitive costs, and lack of time.[5, 6, 7, 8]

The United States Congress and Senate Special Committee on Aging found income to be a major concern for the elderly. The elderly have an income that is less than half of the income of the younger generation. In most parts of the country that gap is widening. Families headed by an older person had a median family income of $5,453.00 in 1972, while those elderly individuals still living as a family unit had a median family income of $2,199.00.[9] Thus, elderly individuals numbering as high as 4.3 million are living in households which are considered to be below the poverty level.

A variety of disabling health problems also act as inhibitors to elderly participants in educational activities. High medical cost, the time involved with medical visits, decreasing energy reserves, handicaps, and crippling diseases are only a few of the problems many older people face.[10]

Still another problem to be discussed here is the fact that in planning programs adult educators simply are not considering the older adult as a possible participant.[11] The fact that only 1.6% of those individuals over 64 participated in adult education during 1969 (as reported in Table 1, Chapter I) is some indication of this problem. Consequently, it is suggested that adult educators must examine a variety of approaches to overcoming the various inhibitors if the many learning needs of the older person are to be met.

Learning Needs

There are a variety of needs that can be discussed relative to the older person. McClusky suggested several types of needs that education has a potentially powerful role to play in fulfilling: coping, expressive, contributive, influence, and transcendence.[12] He suggests various implications related to education for each category.

Coping needs refer to the more basic needs that fulfill the requirements for psycho-social adjustments and physical well-being. Educational programs related to such needs would be adult basic education, health education, programs involving economic improvement training and retraining, family life education, and leisure activities. Programs related to the expressive need category would include activities that were being engaged in for their own sake. These could include liberal arts, hobbies, and physical education activities. Contributive needs might include in-service training, leadership skill building, and community service awareness activities. Programs related to influence needs could be represented by community action education and programs dealing with leadership or management. The need for transcendence learning could be met through such courses as the study of literature, philosophy, and even theology.

Hiemstra completed a study in which the expressive-vs-instrumental concept of need was explored, a broader classification scheme than the one described above. The study revealed that a significantly higher preference for instrumental activities (competency areas designed for effective mastery of old age challenges) was elicited from older people as compared to preferences given for expressive activities (experiences designed to increase a person's enjoyment of life).[13] Instrumental-type learning activities would include course titles such as "Stretching your Retirement Dollar," "Wills and Estate Planning," "Nutrition and the Aging Process," and "Medical Care in the Retirement Years." Expressive examples would include "Art Appreciation," "Nature Photography," "The Archaeology of Mexico," "Three Black Authors," and "Introduction to Crafts."

Other researchers have studied the instrumental and expressive classification scheme. Studies by Goodrow,[14] Marcus,[15] and Whatley[16] have supported the pref-

erence for instrumental courses finding. An important point, however, is that the information on such preferences needs to be supplemented by research on demonstrated or actual learning needs in comparison with perceived needs and interests.[17] DeCrow further cautions that the instrumental and expressive categories are quite broad and that dichotomizing all educational opportunities has some drawbacks.[18] Finally, further analysis of what older persons are actually participating in is needed to more fully understand what should be offered.[19]

Another means for describing some learning needs of the older person is to examine those circumstances of life that primarily only the elderly face, i.e., retirement, bereavement, and death. Pre-retirement education, financial planning workshops, and loneliness seminars are likely topics for adult education planners to consider. Perhaps, though, there are better means for meeting these type of needs. Kimmel, for example, suggests that the older person himself or herself is potentially one of the best sources to provide expertise and to facilitate learning on these topics.[20]

An important thing to remember is that each elderly adult is a unique individual and different individuals with different needs will demand different educational programs. Birren believes that when age-related differences in learning are found, it is not a primary capacity to learn that makes the difference, but an individual's basic perceptual differences, a mind set, the motivation of the individual, or the physiological state (including that of disease and disability status).[21] All these factors have implications for educational programming and in analyzing learning activity by older people.

Learning Activity

There are many interesting endeavors already taking place to meet some of the learning needs of the older person. Many institutions of higher education are

beginning to graduate professional adult educators who have specialized in the area of Gerontology. Some universities and colleges are also offering means for the elderly to enroll in regular programs or to participate in non-traditional programs. The North Hennipen (Minnesota) College, as one specific example, has built a large program for senior citizens with many participants involved in both credit and non-credit college courses.

Various national organizations have also become involved with providing educational opportunity to the older person. The National Institute for Senior Centers is currently working to upgrade senior center personnel so that better opportunities for learning can be provided.[22] In addition, the National Retired Teachers Association has a program entitled "The Institute of Lifetime Learning," and the American Association of Retired Persons has a program entitled the "Herman L. Donovan Senior Citizens' Fellowship Program."[23]

DeCrow completed a national study aimed at uncovering the extent of learning opportunity in a variety of agencies. Some 3500 different programs were reported from all parts of the educational field and from a variety of non-school organizations. The study revealed that of the 3500 reporting agencies, 58% had begun new activities within the year preceeding the receipt of the questionnaire.[24] Such findings show the rapid growth in opportunity and the fluidity of the situation.

Within the State of Nebraska a fluid and growth situation exists, too. Within the past year a special state-wide pre-retirement education program has been initiated by the Gerontology Program of the University of Nebraska-Omaha.[25] Many older people have already participated in the program and more will in the coming year. In addition, about 1000 people over the age of 68 participated in adult education programs supported through grants by the State Department of Education.[26] Finally, several community colleges and state colleges in Nebraska have special

programs for the elderly.[27]

A facinating area of study in examining the topic of learning activity by older people is bio-feedback. The controlling of hypertension through bio-feedback, for example, has tremendous implications for the older person.[28] Some researchers have shown that the elderly can learn certain bio-feedback techniques quicker than younger people, suggesting that the elderly are potentially better at self-awareness or progressive relaxation kinds of activities.[29] Perhaps these types of endeavors, when more is understood about their potentials and dangers, can be utilized to help the older person become much more skilled at personal problem solving.

A related literature area is the emerging theory base pertaining to adults' learning projects.[30, 31] Although not specifically concerned with the older adult learner, the material on learning projects is reviewed here because part of the interview schedule used for the studies reported above was adapted for use in the current study.

The research utilized to determine learning project activity has created a good deal of excitement in adult education circles. New attention is being given to the potential of the adult learner, especially in the area of self-directed learning. Table 2 details some of the findings; the data suggest that a great deal of self-motivated learning is taking place.

As will be reported in Chapter IV, support for the idea that the older person should have more learning opportunities has been found. Certainly many opportunities already exist and more are being provided each year; however, it is hoped that this research report will help adult educators understand more about the older person, their problems, and their needs so that an even better job can be done in the future.

Table 2. A Comparison of Summary Statistics from Five Research Studies on Learning Projects[a]

Study[b]	No. of Projects[c]	No. of Hours[d]	Estimated Age Range[e]	N
Tough	8.3	816	20-55	66
Coolican	4.2	244	20-30	48
Johns	8.4	1046	25-50	39
McCatty	11.1	1244	35-60	54
Denys	4.8	430	30-55	40

[a] See definitions in Chapter I.

[b] See reference #31 for a complete bibliographic citation.

[c] Average number of projects per person per year.

[d] Average number of hours per person per year.

[e] Estimated by Hiemstra based on information available for each study.

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[3]Jack London, "The Social Setting for Adult Education," a chapter in Handbook of Adult Education, edited by Robert M. Smith, et al. (London: The MacMillan Company, 1970), p. 15.

[4]An excellent discussion of various cognitive-related factors is contained in Sheila M. Chown, editor, Human Ageing (Baltimore, Maryland: Penguin Books, Inc., 1972), various chapters. A shorter discussion of some cognitive factors is contained in David L. Arenberg and Elizabeth A. Robertson, "The Older Individual as a Learner," a chapter in Grabowski and Mason, op. cit.

[5]Various chapters in Grabowski and Mason, op. cit., contain some discussion of non-cognitive inhibitors.

[6]Hiemstra, op. cit.

[7]Roger DeCrow, Director, Older Americans Project, New Learning for Older Americans (Washington, D.C.: Adult Education Association of the U.S.A., ca. 1974).

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[9]U.S. Congress. Senate. Special Committee on Aging. Developments in Aging: 1972 and January-March, 1973. Report No. 93-147 (Washington, D.C.: U.S. Government Printing Office, 1973).

[10]David A. Peterson, "The Role of Gerontology in Adult Education," a chapter in Grabowski and Mason, op. cit.

[11]Michael G. Kobasky, "Educational Opportunities for the Elderly," a chapter in Grabowski and Mason, op. cit.

[12]McClusky, op. cit.

[13]Hiemstra, op. cit.

[14]Bruce Goodrow, The Learning Needs and Interests of the Elderly in Knox County, Tennessee, Doctoral Dissertation, University of Tennessee, 1974 (Ann Arbor, Michigan: University Microfilms, order #75-11, 169, 1975).

[15]Edward E. Marcus, "Effects of Age, Sex, and Socioeconomic Status on Adult Education Participants' Perception of the Utility of Their Participation," a Doctoral Dissertation in progress, University of Chicago.

[16]Lynda Folsom Whatley, Expressive and Instrumental Educational Interests of Older Adults as Perceived by Adult Educators, Gerontologists, and Older Adults, Masters Thesis, University of Georgia, 1974.

[17]For further information on the issue of perceived versus demonstrated needs see Roger Hiemstra and Roger Long, "A Survey of 'Felt' Versus 'Real' Needs of Physical Therapists," Adult Education, XXIV, No. 4, 1974, pp. 270-79.

[18]DeCrow, op. cit. p. 58.

[19]Hiemstra recently examined the learning activities available in five different senior citizen centers or programs and determined that 82% of all activities were expressive in nature. Consequently, even if the older person wished to participate in instrumental activities, the actual opportunities appear quite limited.

[20]Douglas C. Kimmel, Adulthood and Aging (New York: John Wiley and Sons, Inc., 1974).

[21]James E. Birren, The Psychology of Aging (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1964).

[22]National Council on Aging, "Seminar on Programming," National Institute of Senior Centers, Airlie, Virginia, December 9-12, 1973 (Washington, D.C.: National Council on Aging, 1974).

[23]Kobasky, op. cit.

[24]DeCrow, op. cit.

[25]Nebraska Commission on Aging, The Older Nebraskan Voice, first issue, ca. 1975.

[26]Nebraska Commission on Aging, The Older Nebraskan Voice, VI, No. 5, May-June, 1975, pp. 12-24.

[27]Ibid.

[28]Frances Wilkie and Carl Eisdorfer, "Intelligence and Blood Pressure in the Aged," Science, 172, 1971.

[29]Diane S. Woodruff and James E. Birren, "Biofeedback Conditioning of the EEG Alpha Rhythm in Young and Old Subjects," Proceedings of the 80th Annual Meeting of the American Psychological Association, Honolulu, 1972, 673-674.

[30]Tough, op. cit.

[31]Patricia M. Coolican, Self-Planned Learning: Implications for the Future of Adult Education (Syracuse, New York: Educational Policy Research Center, Syracuse University, 1974). She also references in her report various other studies based on the learning projects concept. Patricia M. Coolican, The Learning Style of Mothers of Young Children, Doctoral Dissertation, Syracuse University, 1973. Laurent Denys, The Major Learning Efforts of Two Groups of Accra Adults, Doctoral Dissertation, University of Toronto, 1973. Will Johns, Jr., Selected Characteristics of the Learning Projects Pursued by Practicing Pharmacists, Doctoral Dissertation, University of Georgia, 1973. Cressy McCatty, Patterns of Learning Projects Among Professional Men, Doctoral Dissertation, University of Toronto, 1973.

CHAPTER III

DESIGN OF THE STUDY

The theme developed thus far in the report points out the great need for life long learning to facilitate adequate adjustment in the later years. At the same time, there exists evidence that current learning opportunities being offered to the older adult for purposes of personal growth and development are not being used extensively. What are the reasons for this low participation rate? It is an intent of this study to supply some answers to this question by securing a better understanding of learning interests, obstacles, and activities of older people. Hopefully, such answers will help promote more functional educational programs for the elderly.

Type of Study

This research endeavor utilized the contribution of field study techniques and the survey method involving a personal interview. Katz suggests that exploratory field studies have three purposes: "to discover significant variables in the field situation, to discover relations among variables, and to lay a ground work for later, more systematic and rigorous testing of hypotheses."[1] It was anticipated that the information gained by combining an interview approach with the field study technique would provide the most comprehensive accumulation of information possible given the current state of knowledge regarding learning activity and the older adult.

Several tentative hypotheses were formulated for the study based on a limited number of related studies. It is expected that a testing of these hypotheses and additional results of the study will provide a better understanding of some existing variables, prompt continued research, and promote a more rigorous testing of

hypotheses in subsequent research.

Hypotheses

1. One aspect of the study was to obtain as representative a sample as possible. Consequently, the following null hypothesis was examined:

H1: There will be no differences between demographic data for the study sample and 1970 census data for Nebraska.

2. The study also examined the instrumental and expressive course classifications (see Chapter II). The following null hypotheses were examined:

H2: There will be no preference differences in course selection according to instrumental or expressive categories. (The predicted direction is preference for instrumental courses.)

H3: There will be no preference differences according to instrumental or expressive categories based on various demographic characteristics. (Directional predictions will be described in Chapter IV.)

3. The study examined the amount of learning activity undertaken in a year by older adults. Data collection on learning activity was based on the information by Tough and Coolican described in Chapter II.

H4: There will be no significant differences in the average number of learning projects or hours spent in learning according to various demographic characteristics. (No direction is predicted.)

Data Collection Procedures

Data collection for this study involved the use of an interview schedule. Appendix [illegible] shows the instrument, the accompanying sheets for the interviewer's use, and the corresponding computer code sheet.

The Interview Schedule

The instrument contained four major sections:

1. The first section sought answers to questions on sex, age, marital status, formal education attainment, and profession or occupation. The interviewers made personal judgements in recording race, social class, and type of housing in which the interviewee resided.

2. Part two was designed to obtain information on some potential inhibitors to participation in learning endeavors. Yes/No responses were required to 25 obstacles the respondents felt would prevent older people from participating in learning activities. The obstacles were ascertained through a review of the literature.

3. The third section examined the instrumental versus expressive categorization notion. Yes/No responses were required to indicate interest in 32 different course titles, given that the participant had no obstacle to prevent him or her from enrolling in each. The 32 titles were taken from a pool of 75 course titles gleaned from the literature, course catalogues from five institutions offering courses or programs to the elderly, and the earlier study.[2] A panel of three adult education/gerontology experts were utilized to determine whether a course title was deemed instrumental or expressive in nature. Where there was unanimous agreement, 16 instrumental and 16 expressive, those courses were included in the pilot-test interview schedule.

4. The final section utilized the interview schedule from Tough's work as a basis to determine the amount of learning activity within the year preceeding the interview. This section utilized a probing technique to ascertain the number of different learning projects, the types, the amount of time spent on each project, and information as to the nature of involvement in the learning activity.

Interviewing Process

Eight interviewers (advanced graduate students in adult education) were trained in a four hour session that included an orientation to the research project and process, a simulation interviewing activity, and a practice session on two individuals in the age 55 or older range who were selected at random. The researcher observed the interviewing procedure during the simulation activity, examined the data sheets after the practice sessions, and answered interviewers' questions as they arose. Each interviewer was given information pertaining to the sample from which he or she was to choose respondents. Interviewers then carried out the interviews (the average time for each interview was slightly more than one hour),[3] completed the corresponding code sheets, and turned in their information.

The interviewing process requires an extensive probing technique to help respondents recall all learning activities in a given years, especially those that are primarily self-planned or self-initiated. Thus, each interviewer was taught to approach the stimulation of recall through several related questions, through the use of reminder lists for the respondents to see or listen to, and through final follow-up questions. A sheet with reminder interviewing tips and supplemental sheets to the interview schedule were made available to each interviewer (see Appendix A).

Reliability

Several efforts were made to ensure that as reliable an instrument as possible was designed.

1. The initial draft of an instrument was pilot-tested by the researcher with four people aged 57, 60, 68, and 81, respectively. Individual questions were

checked for ambiguity, clarity, wording, and sequence. Some minor corrections were made and the final form of the instrument developed.

2. The definition of learning utilized originally by Tough was redefined slightly to facilitate each interviewer in having a common understanding of a learning project. The definition utilized was as follows: A series of clearly related learning efforts adding up to at least seven hours of effort within a six-month period. The learning effort must include activities designed to obtain new information, to develop new skills, or to re-examine existing attitudes and beliefs. Activities undertaken primarily for entertainment or recreational purposes are not to be included, nor is any time to be included that is not directly related to the learning activity.

3. A research assistant in the Department of Adult Education at the University of Nebraska examined each interviewer schedule and code sheet for consistency, interviewer problems, learning projects recorded that did not fit the above definition, and code sheet errors. Any problems were discussed with the researcher and the interviewer if necessary.

4. One interviewer was obviously having difficulties with the process because of his frequent questions and the nature of the data being collected. Subsequently, he was asked to drop out of the interviewing process and data from his completed interviews were not included in the final tabulations.

5. A telephone follow-up of one respondent from each of the interviewer's group of respondents approximately one month after the interview was carried out. Although statistical testing was not attempted with such a small follow-up sample, the researcher believes that because there were so few differences between the telephone information and the interview data, especially on the obstacles and course preferences information, the instrument and the interviewers were quite reliable.[4]

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Invariably, one learning project could be added with intensive probing or in some cases one mentioned in the initial interview was not recalled over the telephone. Despite his intensive efforts, Tough also determined that "interviewers felt they failed to uncover all of the learning projects in some interviews and that perhaps self-planned learning is even more common than . . . figures indicate."[5]

6. Statistically the following was accomplished: The total sample was split randomly into two groups. The groups were then compared by chi-square on the total number of expressive and the total number of instrumental course selections. No significant differences were found as shown below:

	Instrumental Preferences	Expressive Preferences
Group One	629	402
Group Two	615	439
Totals	1244	841

χ^2 value = 1.42 p is N.S.

Validity

Several efforts were made to ensure initially that a valid interview schedule was available or after the collection of the data to assess how valid was the instrument.

1. In the initial development of the instrument a review of the literature aided from a content validity view the inclusion of obstacles and courses.

2. A panel of judges assisted in the construct validity effort by categorizing the courses chosen as instrumental or expressive. An original pool of 75 course titles was obtained from the literature and from the course catalogs of agencies offering courses to the older person. Each panel member (a teacher in gerontology,

an administrator of gerontology programs, and an adult education/cooperative extension researcher) was given the list of 75 courses and a definition of the two terms. Where there was unanimous agreement from all three (each working independent of the other) that a course title was instrumental or expressive it was included on the instrument. To keep even numbers sixteen in each category were included (there were actually 29 "expressive" agreements). Respondents were not told anything about the instrumental or expressive categorizations.

3. Observations made during the pilot-testing by the researcher suggested that the instrument was actually measuring indications of learning inhibitors, course preferences, and learning activity.

4. Concurrent validation involved the comparison of course preferences with information reported on section 4 of the schedule after the actual learning activities were categorized by the researcher and the research assistant working independently. The information is shown below:

	Total Number of Course Preferences	Actual Learning Projects
Instrumental	1244	427
Expressive	841	271

χ^2 value = .30 p = N.S.

Individual respondent correlations of the number of course preferences to the number of actual learning projects were as follows:

$r_{instrumental} = .2541$

$r_{expressive} = .3474$

Although both correlation coefficients are relatively small, they are significant at the .001 level and beyond.

Population for the Study

The population consisted of 256 adults, 55 and older, residing in the State of Nebraska.[6] The following describes their location and how they were selected:

1. Urban (Lincoln) Group --
   a. 114 people were chosen randomly from voter registration cards and divided up among three interviewers.[7]
   b. 31 people were chosen randomly from the rolls of two residential complexes built especially for the elderly and interviewed by one person.
2. Rural Group -- 38 people were chosen randomly from voter registration cards or rural townships in Nebraska (eighteen townships and two communities were represented near Lincoln and Omaha, Nebraska) and interviewed by one person.
3. Small Town Group --
   a. 45 people were chosen randomly from the voter registration cards in three small Nebraska communities (under 4,000 population) and interviewed primarily by one person (one person noted above interviewed four people in this group).
   b. 28 people were chosen randomly from the rolls of a Mexican-American community center in a middle-sized Western Nebraska town (15,000) and interviewed by a Spanish speaking person.

The refusal rate was very low (only 17 people refused to be interviewed). However, two interviewers exhausted their pool of names because of not being able to find people at home and thus reduced the number of potential respondents. In addition, several interviewees determined that the interview was taking too much time and were unable or unwilling to finish answering all the questions on the instrument.

Data Analysis

Tables with frequencies, percentages, and means will be utilized to describe much of the data throughout Chapters III and IV. In addition, a crossbreak analysis was used wherever it was determined that comparisons could be explained better, where the significance of any differences revealed through exploratory computations could be shown, and when testing some of the study's hypotheses. The t-test for significant differences between means was utilized for examining the fourth hypothesis.

The crossbreak analysis was utilized when two nominal (actual or researcher-manipulated) variables were being compared. A major purpose of the crossbreak technique is as follows:

> . . . to facilitate the study and analysis of relations. Crossbreaks, by conveniently juxtaposing research variables, enable the researcher to determine the nature of the relations between the variables.[9]

The "Statistical Package for the Social Sciences" (a computer package available through the University of Nebraska's Computer Center) contains a crossbreak analysis program that includes computation of the chi-square statistic. Fisher's exact test is applied in SPSS when there are fewer than 21 cases and Yate's corrected chi-square is applied to all other comparisons when the tables are 2 X 2 tables.[10] Significance found at the .05 level and beyond will be included in this report. Because directions are predicted for hypotheses 2 and 3, the one tailed test of significance was utilized.[11, 12]

The t-test of significance was employed to explore the relations between nominalized (actual or researcher manipulated) variables (questions on the instrument) and interval scales (the number of learning projects and the number of hours) in an examination of the fourth hypothesis. The assumption of equal-intervals

was made for the two scaled variables so that the t-test could be used:

> . . . if we use ordinal measures as though they were interval or ratio measures, we can err seriously in interpreting data and the relations inferred from data, though the danger is probably not as grave as it has been made out to be . . . On the other hand, if we abide strictly by the rules, we cut off powerful modes of measurement and analyses and we are left with tools inadequate to cope with the problems we want to solve.[13]

In addition to an assumption about equal intervals, the researcher made the assumption that two populations, i. e., natural or manipulated groupings, might or might not have the same variance. The SPSS computer package automatically computes an F test of sample variance so that a decision on pooled variance probability estimate versus separate variance probability estimate could be determined at the .05 level of confidence:

> . . . the null hypothesis $H_0 : \sigma_1^2 = \sigma_2^2$ with alternative $H_1 : \sigma_1^2 \neq \sigma_2^2$ and a significance level α^1 is chosen . . .[2] From the sample variances, F is computed.
>
> $$F = \frac{\text{larger } S^2}{\text{smaller } S^2}$$
>
> If the probability for F is greater than α^1, H_0 is accepted; t based on the pooled-variance estimate . . . should be issued.
>
> If the probability for F is less than or equal to α^1, H_0 is rejected; t based on the separate variance estimate . . . should be used.[14]

Thus, the researcher examined each t value in light of the above and significant values reported in the next chapter were determined accordingly.

The Respondents

General Information

Table 3 displays a variety of demographic data pertaining to the respondents. In summary of that data the subjects were approximately sixty percent female, mostly white American, and mainly from the middle class strata. Most of the interviewees lived in a house, were married, and were at least a high school graduate.

Table 3. Various Demographic Characteristics for the Study's Respondents

Characteristic Description	Response Frequency	Percent	Accumulative Percent
Sex:			
Male	105	41.0	--
Female	151	59.0	--
	256	100.0	
Race:			
White American	227	88.7	88.7
Black American	1	.4	89.1
Mexican American	28	10.9	100.0
	256	100.0	
Social Class:[a]			
Lower	15	5.9	5.9
Middle-Blue Collar	116	45.3	51.2
Middle-White Collar	109	42.5	93.7
Upper	16	6.3	100.0
	256	100.0	
Living Arrangement:			
Apartment	32	12.5	12.5
House	193	75.4	87.9
Other	31	12.1	100.0
	256	100.0	
Marital Status:			
Married	162	63.3	63.3
Widowed	65	25.4	88.7
Single	21	8.2	96.9
Divorced/Separated	8	3.1	100.0
	256	100.0	

Table 3. (continued)

Characteristic Description	Response Frequency	Percent	Accumulative Percent
Years of Education:			
Less than 8th Grade	24	9.4	9.4
8th - 11th Grade	62	24.3	33.7
High School Graduate	13	32.2	65.9
Some College	37	14.5	80.4
College Graduate	25	9.8	90.2
Graduate Training	25	9.8	100.0
	256	100.0	
Profession/Occupation:[b]			
Higher Executive/Professional	11	4.3	4.3
Lower Executive	46	18.0	22.3
Administrative Personnel	16	6.3	28.6
Homemaker	79	30.6	59.2
Clerical/Technician	39	15.3	74.5
Skilled	41	16.1	90.6
Semi-Skilled	16	6.3	96.9
Unskilled	8	3.1	100.0
	256	100.0	
Age:			
55-64	101	39.45	
65 and older	155	60.55	
	256	100.00	

Oldest Person -- 98 years of age
Average Age -- 68.11 years
Median Age -- 67.10 years

Table 3. (continued)

Characteristic Description	Response Frequency	Percent	Accumulative Percent
Location:[c]			
Urban	145	56.6	--
Rural	111	43.4	--
	256	100.0	

[a]Determined by the interviewer based on answers to other questions and personal observations. This particular category was also discussed during the interviewers' training session.

[b]Determined by the interviewer based on answers to other questions or to direct questions about occupation. This particular category was also discussed during the interviewers' training session.

[c]Urban subjects included only those residing in Lincoln. All others were classified as rural.

A wide variety of occupations were represented, but with only a fairly small percentage falling in semi-skilled or unskilled categories.

The age distribution showed a fairly large number in each group, although sixty percent of the interviewees were over 64. The range of age was from 55 to 98 with the average age at slightly more than 68 years. Slightly more than thirty-five percent were 70 years of age or older.

Interviewers also asked questions seeking to ascertain if the older persons had received training outside the formal education structure. It was reported that 108 people had received or participated in specialized training. The following outlines the main categories reported:

Vocational/technical training -- 15 people

On the job training -- 41 people

Correspondence study -- 8 people

Business school -- 18 people

Miscellaneous training -- 26 people

This particular question was not pursued in depth by the interviewers. Subsequent research would need to delve deeper into the topic if it is considered an important variable.

Hypothesis Testing

The first hypothesis stated in the null form there will be no differences between demographic data for the study sample and 1970 Census data for Nebraska. Table 4 shows the comparative data for selected variables. On the demographic characteristics of age, sex, marital status, and occupation, the study sample was representative of the total state population, 55 years of age and older. However, the hypothesis received only partial support. The study sample included more non-whites, higher educated people, and more urban residents than would be expected in a truly representative sample. The fact that a fairly large proportion of the individuals resided in Lincoln accounted for much of the difference.

Table 4. Crossbreak Comparison of Selected Study Demographic Variables with 1970 U.S. Census Data for Nebraskans (55 Years of Age and Older)

Comparison Variables	Study Data No.	Study Data %	Census Data No.	Census Data %
Sex:				
Female	151	59.0	177,593	55.2
Male	105	41.0	144,591	44.8
Totals	256	100.0	322,184	100.0
χ^2 value[a] = 1.51	N.S.			
Race:				
White American	227	88.7	316,300	98.2
Other	29	11.3	5,884	1.8
Totals	256	100.0	322,184	100.0
χ^2 value = 128.73	Sig. = < .001			
Marital Status:				
Married	162	63.3	201,307	61.8
Widowed	65	25.4	28,125	8.7
Single	21	8.2	78,875	24.2
Divorced/Separated	8	3.1	17,259	5.3
Totals	256	100.0	325,566[b]	100.0
χ^2 value = 2.57	N.S.			
Years of Education:				
Less than 8th Grade	24	9.4	45,950	16.3
8th - 11th Grade	62	24.3	134,206	47.5
High School Graduate	83	32.2	58,825	20.8
Some College	37	14.5	25,408	9.0
College Graduate	25	9.8	10,592	3.8
Graduate Training	25	9.8	7,453	2.6
Totals	256	100.0	282,434[c]	100.0
χ^2 value = 135.13	Sig. = < .001			

Table 4. (continued)

Comparison Variables		Study Data		Census Data	
		No.	%	No.	%
Occupation:[d]					
White Collar		112	63.3	320,482	63.3
Blue Collar		65	36.7	185,676	36.7
Totals		177	100.0	406,158	100.0
x^2 value = 0.00	N.S.				
Age:					
55-64		101	39.45	138,658	43.1
65 and older		155	60.55	183,526	56.9
Totals		256	100.0	322,184	100.0
x^2 value = 1.39	N.S.				
Location:[e]					
Urban		145	56.6	162,454	50.4
Rural		111	43.4	159,730	49.6
Totals		256	100.0	322,184	100.0
x^2 value = 3.96	Sig. = < .05				

[a] Expected frequencies within each category were obtained for the chi-square test by multiplying the corresponding Census data percentage times the study number total.

[b] Based on sampling projections so that the totals are different than the actual universe total.

[c] Based on sample projections of those individuals with an income so that the totals are different than the actual universe total.

[d] Based on sample projections of employed individuals, 16 years of age and older, so that the totals represent the entire Nebraskan adult population. White collar includes professional, technical, managerial, sales, clerical,

and farm owners classifications. Blue collar includes craftsmen, operatives, and laborer classifications. Housewives/homemakers, service workers, and private household workers are not included in either group. Homemakers are also not included in the study population for the chi-square computation.

.e
Urban included only Lincoln residents. Rural included all other individuals.

References and Footnotes

1
Daniel Katz, "Field Studies," a chapter in Research Methods in the Behavioral Sciences, edited by Leon Festinger and Daniel Katz (New York: Holt, Rinehart, and Winston, Inc., 1953), p. 17.

2
Hiemstra, op. cit.

3
Tough, op. cit., averaged about two hours per interview in his work. As will be seen in Chapter IV, the number of projects and hours devoted to learning were fewer in this study as compared to what Tough found. Perhaps the interviewers for this study did not do an adequate job of probing to uncover all learning projects. However, if subsequent research reveals that the older person does indeed spend fewer hours in learning each year, then the less than two hours in interviewing is probably all that is required to gather the data.

4
Coolican, op. cit., p. 11, notes that no coefficients of interviewer reliability were established among the various interviewers mentioned in her report. Subsequent research should endeavor to determine actual interviewer reliability.

5
Tough, op. cit., p. 89.

6
Age 55 was chosen because that is now the age being considered by many as the time to begin retirement. Robert Havighurst, "Adult Education and Human Development," Centro Social, International issue, 14, 1967, p. 12, refers to it as the beginning point for maintaining one's position and for looking ahead. Financial limitations precluded the choice of study individuals who resided outside the State of Nebraska.

7
City hall officials made available the voter registration cards. A pool of randomly selected individuals was obtained with names, addresses, and ages. Each interviewer was given a list of names and he or she contacted people on the list until between 35 and 40 interviews were completed.

8
The term "variable" in this study refers to the various demographic characteristics, the obstacle selections, the course preferences, and the learning projects information.

9
Fred N. Kerlinger, Foundations of Behavioral Research (New York: Holt, Rinehart and Winston, Inc., 1967), p. 243.

References and Footnotes
(cont.)

10
Norman H. Nie, et al., Statistical Package for the Social Sciences, second edition (New York: McGraw-Hill Book Company, 1975), p. 243.

11
Sidney Siegel, Nonparametric Statistics (New York: McGraw-Hill Book Company, 1956), p. 13.

12
Bruce W. Tuckman, Conducting Educational Research (New York: Harcourt, Brace, Jovanovich, Inc., 1972), p. 378.

13
Kerlinger, op. cit., p. 427.

14
Nie, et al., op. cit., p. 270.

CHAPTER IV

FINDINGS

Introduction

The purpose of this chapter will be to present as concisely as possible the major findings of the study. There are three major sub-divisions in the chapter. The first section will be a brief description of responses to the obstacles that prevent older people from participating in formal learning activities. The second section presents information on course preferences. The section will include some comparisons according to the instrumental and expressive categories and a testing of hypotheses 2 and 3. The final section will describe the learning projects information, make several comparisons, and test hypothesis 4.

Obstacles to Learning

Interviewers asked each respondent the following question: "Many things stop people from taking a course of study, learning a skill, or following a topic of interest. Which of the following do you feel are important in keeping you from learning what you want to learn?" Then a list of 25 obstacles was read and interviewees selected as many as they wanted from the list as obstacles to learning activity.

Table 5 shows the ranked responses from all the people interviewed. Not wanting to go out at night was indicated as an obstacle by almost one-half of the respondents. Perhaps this finding indicates that adult education is preceived of as only evening activity and, if such a conclusion is true, then the non-traditional efforts of educational institutions will need considerable promotion.

Table 5. Obstacles to Learning Activity Ranked by the Numbers Indicating Yes

Obstacle Description	No. Saying Yes	%[a]	Rank
Don't like to go out at night	116	45.3	1
Not enough time	100	39.1	2
Costs	78	30.5	3
Home responsibilities	77	30.1	4
Job responsibilities	73	28.6	5
Don't have enough energy or stamina	72	28.1	6
Don't know what I'd like to learn	69	28.0	7
I'm too old to begin learning	67	26.3	8.5
My health is bad	67	26.3	8.5
Time required to complete programs	53	21.8	10
Don't enjoy studying	47	18.7	11
Too much red tape in enrolling	45	18.9	12
Courses not scheduled when I can attend	43	18.5	13
Strict attendance requirements	38	16.0	14
No transportation available	37	14.5	15
Courses often aren't interesting	32	13.7	16
Tired of school and classrooms	31	12.4	17.5
Not confident of my ability	31	12.1	17.5
No information about where I can get what I want	30	12.3	19
Courses don't seem to be available	24	10.4	20
I don't meet requirements to begin	21	8.9	21
Friends and family don't like idea	20	7.9	22
Low grades in past	9	3.6	23
No way to get credit for a degree	7	3.0	24.5
No place to study or practice	7	2.7	24.5

[a] Percentages based on total number of responses per item. There were occasional non-responses for an item.

A further examination of the table reveals that perceptions of personal problems, time constraints, and health-related obstacles are ranked quite high. Obstacles related primarily to administrative decision-making areas perhaps are

the next highest marked areas. Family-related constraints, attitudes about personal abilities, and course-related problems were obstacles receiving only a few "yes" responses.

Hopefully, the information related to perceived obstacles can be utilized by program administrators to make learning opportunities more available. In addition, subsequent research should focus more intently on this issue of obstacles and determine some means whereby they can be overcome.

Instrumental and Expressive Learning

Interviewers also made the following statement about potential enrollment in adult education activities: "Suppose you had an opportunity tomorrow to enroll in an adult education course that met once a week for two hours for six consecutive weeks. By this I mean that you had the time, the finances, and the transportation to wherever the course would be offered. In which of the following courses might you be interested in enrolling?" The respondents were then read the list of 32 courses and asked to indicate their interest with a "yes" or "no" reply. Table 6 details those responses.

Many of the instrumental selections were ranked highly by the respondents. Fifty percent or more of the individuals said they would enroll in two of the five money-related courses and four of the five were ranked in the top half of course selections. Health related topics were another area of high interest. Music appreciation, art appreciation, outdoor flora, and modern religions were the only expressive courses ranked in the top half.

Perhaps not too surprising, the topic "The high cost of dying" was ranked at the bottom. Art, crafts, and outdoor-related courses also were infrequently selected by respondents. Hopefully, the information on course selection will be

Table 6. Course Selection Preferences Ranked by the Numbers Indicating Yes

Course Title	No. Saying Yes	%[a]	Rank
Stretching Your Retirement Dollar (I)[b]	138	53.9	1
Tax Benefits for Older Americans (I)	129	50.4	2
Outdoor Flora	107	41.8	3
Medical Care in the Retirement Years (I)	103	40.2	4
Laws Affecting the Aged (I)	100	39.1	5
Tourism and Your Travel Dollar (I)	97	37.9	6
Music Appreciation	90	35.2	7
Wills and Estate Planning (I)	88	34.4	8
New Opportunities in Retirement (I)	85	33.3	9.5
Physical Fitness with Fun (I)	85	33.2	9.5
Nutrition and the Aging Process (I)	83	32.5	11
Leisure Activities for Retirement Years (I)	82	32.2	12
Modern Religions	78	30.5	13
Fundamentals of Investing (I)	73	28.5	14
Reading Efficiency (I)	68	26.7	15
Art Appreciation	64	25.0	17
Introduction to Crafts	64	25.0	17
Mid-Western Birds	64	25.0	17
Films and Photography	55	21.6	19
The Nature of Prejudice	50	19.6	20
Conversational Spanish	45	17.6	21
The Archaeology of Mexico	43	16.8	22.5
Beginning Painting	43	16.8	22.5
Financial Aspects of Retirement Counseling (I)	42	16.4	24
Rock Collecting	36	14.1	25.5
Foot Problems and Care (I)	36	14.1	25.5
Nature Photography	35	13.7	27
Three Black Authors	26	10.2	28
Astronomy: From Myth to Science	23	9.0	29
Mushroom Hunting	18	7.1	30.5
Basics of Lipreading (I)	18	7.0	30.5
The High Cost of Dying (I)	17	6.6	32

[a] Percentages based on total number of responses per item. There were occasional non-responses for an item.

[b] The letter in parentheses signifies an instrumental course. All others were classified as expressive in nature.

helpful in future course planning by educators.

The second hypothesis predicted a greater preference for instrumental courses. As Table 7 shows, a significant preference for instrumental types of learning was found and the null hypothesis of no difference according to instrumental or expressive categories can be rejected. Note, too, that the figures in parentheses reveal that actual learning involvement was in the direction of instrumental activities at a significant level.

Table 7. Preferences Toward Instrumental and Expressive Forms of Learning

Preference Category	Actual No.	%	Expected No.[a]	%
Course Title Selection:				
Instrumental	1244	59.7	1042.5	50.0
Expressive	841	40.3	1042.5	50.0
Totals	2085	100.0	2085.0	100.0
χ^2 value = 77.89 Sig. = < .001				
Actual Learning Projects:[b]				
Instrumental	(421)	(60.8)	(346)	(50.0)
Expressive	(271)	(39.2)	(346)	(50.0)
Totals	(692)	(100.0)	(692)	(100.0)
χ^2 value = (32.51) Sig. = (< .001)				

[a] Assuming the null hypothesis of no difference, 50% of the total number of course selections or learning projects could be expected in both categories.

[b] The actual learning projects are described in the next major section. Analysis and categorization of actual learning projects is described in Chapter III within the validation discussion.

The third hypothesis called for an examination of any preference differences according to instrumental or expressive categories based on various demographic characteristics. Predicted directions were as follows based on an earlier study by the researcher:[1]

1. The oldest individuals would show more preference toward instrumental.
2. Males would show more preference toward instrumental.
3. Blue collar workers would show more preference toward instrumental than would white collar workers.
4. Rural residents would show more preference toward instrumental than would urban residents.
5. Less than college graduates would show more preference toward instrumental than would college graduates.

Table 8 shows the results related to the hypothesis and includes data for comparisons according to the variables "race," "social class," "living arrangement," and "marital status" for which no directions were predicted. (Additional related tables can be found in Appendix B.)

The directions suggested were generally supported, although only for two variables were there significant differences. In addition, younger individuals tended to prefer instrumental courses at a greater rate than older respondents. Consequently, rejection of the null hypothesis can only be partial. Note, too, that the "race" and "marital status" characteristics showed significant differences in the comparisons and should provide some directional suggests for future hypotheses and research.

The learning activities to be described more fully in the next section were also analyzed according to the instrumental and expressive categories. (For 20 of the projects it was impossible to determine if the classification should be instrumental or expressive. Consequently, only a base of 692 instead of 714 could

Table 8. Crossbreak Comparisons of Various Demographic Variables with Instrumental or Expressive Learning Preferences[a]

Comparison Variable	Instrumental No.	Instrumental %	Expressive No.	Expressive %	Totals
Age:					
55-64	67	73.6	24	26.4	91
65 and older	91	67.4	44	32.6	135
Totals	158		68		226
χ^2 value = 0.73	Sig. = N.S.				
Sex:					
Females	83	63.4	48	36.6	131
Males	75	78.9	20	21.1	95
Totals	158		68		226
χ^2 value = 5.64	Sig. = < .01				
Occupation:[b]					
Blue Collar	85	70.2	36	29.8	121
White Collar	72	69.2	32	30.8	104
Totals	157		68		225
χ^2 value = 0.00	Sig. = N.S.				
Location:[c]					
Urban	82	62.6	49	37.4	131
Rural	76	80.0	19	20.0	95
Totals	158		68		226
χ^2 value = 7.12	Sig. = < .005				
Education:[d]					
Less than College Grad.	129	72.1	50	27.9	179
College Graduate	28	60.9	18	39.1	46
Totals	157		68		225
χ^2 value = 1.68	Sig. = N.S.				

Table 8. (continued)

Comparison Variable	Instrumental No.	Instrumental %	Expressive No.	Expressive %	Totals
Race:					
White American	133	66.8	66	33.2	199
Other[e]	25	92.6	2	7.4	27
Totals	158		68		226
χ^2 value = 6.32	Sig. = < .02[f]				
Social Class:[g]					
Upper	6	42.9	8	57.1	14
Upper Middle	69	68.3	32	31.7	101
Lower Middle	77	77.0	23	23.0	100
Lower	6	54.5	5	45.5	11
Totals	158		68		226
χ^2 value = 0.03	Sig. = N.S.				
Living Arrangement:					
Home/House	121	71.6	48	28.4	169
Apartment	22	73.3	8	26.7	30
Institution	10	52.6	9	47.4	19
Other[h]	5	62.5	3	37.5	8
Totals	158		68		226
χ^2 value = 0.35	Sig. = N.S.				
Marital Status:					
Married	107	75.4	35	24.6	142
Widowed	38	66.7	19	33.3	57
Single	8	42.1	11	57.9	19
Divorced/Separated	5	62.5	3	37.5	8
Totals	158		68		226
χ^2 value = 9.48	Sig. = < .05				

Table 8. (continued)

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[a] Instrumental or expressive preferences were determined by tabulating an individual's total number of selections or projects in each category. If the individual's total for instrumental was larger than the total for expressive, the label of instrumental preferences was given (vice versa for expressive preferences). Thirty people had chosen an equal number of instrumental and expressive courses and were not included in the computations for this table. Totals are not always equal to 226 because of non-response.

[b] Homemakers were included within the blue collar grouping. Appendix B shows an expanded version of the occupational classification.

[c] See Table 4, Chapter III, for a description of the location classification.

[d] Appendix B shows an expanded version of the educational classification.

[e] Other included one Black American and 25 Mexican Americans.

[f] A two tailed test for significance table was utilized for this and the next three variables.

[g] See Table 3, Chapter III, for a discussion of this variable.

[h] "Other" included people living with relatives, living at a residence only temporarily, in the process of moving, or living in a convent.

be used.) In a comparison of the learning projects and the various demographic characteristics, some similar and a few differences were observed relative to the information presented above for the third hypothesis. Table 19 in Appendix B contains these findings. The primary differences was in the "race" comparison where a non-significant difference was found.

Table 20 in Appendix B contains a comparison table to Table 8 above, except that those cases where the number of instrumental preferences equaled the number of expressive preferences are included. The only difference in relation to Table 19 was the fact that a non-significant chi-square value existed for marital status.

The same information on actual learning projects was also analyzed by T-test according to the total number of projects per year. As Table 9 shows, there was only one significant difference in the test of means. White collar workers carried out more learning projects in a year than did blue collar workers. As will be seen in a later table, this can be accounted for in part by the fact that the white collar worker was more involved with professional or vocational improvement type of projects.

Although the information in Table 9 is not presented here necessarily in support of hypothesis 2 or 3, the findings should provide useful information for future researchers and program planners. In essence, the data trends suggest that younger people, white collar workers, males, urban residents, people living in homes or apartments, college graduates, non-whites, married people, and upper/upper middle class people are more likely to be engaged in instrumental activities. Females, urban residents, white collar workers, college graduates, non-married individuals, and upper/upper middle class people are more likely to be engaged in expressive forms of learning. Table 21 in Appendix B contains some supplemental data.

Table 9. T-test Comparisons of Various Demographic Variables with the Number of Instrumental and Expressive Learning Projects

Comparison Variable	Instrumental			Expressive		
	No.[a]	Mean	St. Dev.	No.[a]	Mean	St. Dev.
Age:						
55-64	85	2.41	1.66	55	1.89	1.03
65 and older	105	2.06	1.11	88	1.90	1.10
	T value = 1.76			T value = -0.04		
	Sig. = N.S.			Sig. = N.S.		
Sex:						
Female	112	2.13	1.29	95	1.95	1.13
Male	78	2.35	1.52	48	1.79	0.94
	T value = -1.05			T value = 0.87		
	Sig. = N.S.			Sig. = N.S.		
Location:						
Urban	106	2.25	1.43	90	1.95	1.09
Rural	84	2.18	1.34	53	1.79	1.04
	T value = 0.33			T value = 0.89		
	Sig. = N.S.			Sig. = N.S.		
Occupation:						
Blue Collar[b]	103	2.01	1.23	75	1.83	1.03
White Collar	86	2.47	1.54	67	1.96	1.12
	T value = -2.26			T value = -0.71		
	Sig. = <.05			Sig. = N.S.		
Living Arrangement:						
Apartment/House/Home	167	2.25	1.40	122	1.88	1.07
Institution/Other	23	2.00	1.28	21	2.00	1.14
	T value = 0.85			T value = -0.46		
	Sig. = N.S.			Sig. = N.S.		

Table 9. (continued)

Comparison Variable	Instrumental			Expressive		
	No.[a]	Mean	St. Dev.	No.[a]	Mean	St. Dev.
Education:						
College Graduate	44	2.43	1.76	35	2.06	0.91
Less than Coll. Grad.	146	2.15	1.26	107	1.84	1.13
	T value = 1.18			T value = 1.15		
	Sig. = N.S.			Sig. = N.S.		
Race:						
White American	161	2.20	1.42	123	1.90	1.08
Other	29	2.31	1.23	20	1.85	1.04
	T value = -0.44			T value = 0.21		
	Sig. = N.S.			Sig. = N.S.		
Marital Status:						
Married	129	2.34	1.49	86	1.79	0.98
Not married	61	1.95	1.10	57	2.05	1.19
	T value = 1.82			T value = 1.38		
	Sig. = N.S.			Sig. = N.S.		
Social Class:						
Upper/Upper Middle	101	2.30	1.40	83	2.00	1.12
Lower/Lower Middle	89	2.12	1.38	60	1.75	1.00
	T value = 0.86			T value = 1.40		
	Sig. = N.S.			Sig. = N.S.		

[a] The figures represent the number of cases not projects; individuals with zero projects have been excluded.

[b] Homemakers were included in the blue collar classification.

[c] Single respondents were never married, widowed, divorced, or separated.

Learning Projects

Interviewers asked a variety of probing questions to help respondents recall the number of different learning projects and number of hours spent with each project. As Table 10 shows, the older people interviewed are spending a considerable amount of time each year in learning endeavors. It should be noted that 42 people choose not to or were unable to supply information relative to learning projects because of fatigue or unwillingness. Most of these individuals fell in the older and/or lower class groupings. Consequently, a base of 214 people will be utilized throughout this section.

In addition to actual learning activity, the interviewers all noted that most people spent many hours each week of their life watching television programs of an entertainment nature as opposed to an educational nature. One obvious conclusion from this information is the fact that the typical older person in Nebraska keeps active or busy in a variety of ways.

Tables 11 and 12 outline the number of different projects and number of hours spent in learning. Although the majority of the respondents carried out fewer than four projects and spent fewer than 300 hours in learning, many people are engaged in considerable learning each year. To give the reader a flavor of the learning activity, three examples are given:

-- one 86 year old gentleman in Lincoln spent nearly 600 hours last year learning how to grow an organic garden. His activities included attending meetings, reading books, watching ETV programs on gardening, attending gardening meetings, and talking with other gardeners.

-- an 81 year old Lincoln woman spent nearly 1200 hours last year researching for her autobiography. She remarked that she doesn't really care if it is ever published; she just wants to write it.

-- a semi-retired 69 year old factory worker devoted over 2000 hours to research for several magazine articles he is writing. He has had several things published over the years.

Table 10. Older Adults' Learning Projects: General Descriptive Information[a]

Informational Description[b]	Hours	Projects
Average Per Person Per Year	324.56	3.33
Standard Deviation	296.05	1.95
Median	237.43	3.04
Range	12-2300	1-9
Total Number of Projects = 712		
Total Number of Hours = 69,456		

[a] Based on 214 individuals with one or more learning projects.

[b] See Coolican, op. cit., p. 12, for comparable data.

Table 11. Number of Learning Projects Conducted In A Year

Number of Projects[a]	Number of People	Percent of People[b]	Accumulative Percent
0	41	--	--
1	46	21.4	21.4
2	43	20.0	41.4
3	34	15.8	57.2
4	38	17.7	74.9
5	26	12.1	87.0
6	14	6.5	93.5
7	5	2.3	95.8
8	6	2.8	98.6
9	3	1.4	100.0

[a] See Tough, op. cit., p. 17, for comparable data.

[b] Based on a base of 214 individuals.

Table 12. Number of Hours Spent In Learning In A Year

Number of Hours[a]	Number of People	Percent of People	Accumulative Percent
12-99	37	17.29	17.29
100-199	51	23.83	41.12
200-299	38	17.76	58.88
300-399	29	13.55	72.43
400-499	19	8.88	81.31
500-599	12	5.61	86.92
600-699	9	4.21	91.13
700-799	3	1.40	92.53
800-899	5	2.34	94.87
900-999	6	2.80	97.67
1000-1499	3	1.40	99.07
1500-1999	1	0.47	99.54
2000-2300	1	0.47	100.01[b]

[a] See Tough, op. cit., p. 18, for comparable data.

[b] Rounding error.

The information on learning projects was compared with various demographic variables to ascertain a better picture of the learning activity. Table 13 contains this information. If a composite picture is possible, the active older learner in Nebraska more often than not is 55-64 years of age, rural/non-town, white American, upper class, living in an apartment, not-married,

Table 13. Comparisons of Learning Projects Information With Demographic Variables

Comparison Variable	No. of People	Average No. of Projects	Range of Projects	Average No. of Hours	Range of Hours
Age:					
55-64	91	3.43	1-9	336.74	12-1675
65 and older	123	3.26	1-9	315.54	20-2300
Community:					
Urban	126	3.44	1-9	352.11	12-1675
Rural/Non-Town	36	3.75	1-8	388.44	20-2300
Rural/Small Town	52	2.72	1-6	211.30	20-520
Sex:					
Male	89	3.19	1-9	327.65	20-2300
Female	125	3.43	1-9	322.35	12-1675
Race:					
White American	185	3.29	1-9	333.52	12-2300
Black American	1	3.00	3	350.00	1050
Mexican American	28	3.64	1-6	239.71	20-668
Social Class:					
Lower	14	2.93	1-6	256.29	50-990
Lower Middle	85	2.96	1-9	293.59	20-2300
Upper Middle	101	3.48	1-9	307.18	12-1296
Upper	14	4.64	2-7	590.86	212-1675
Living Arrangement:					
Apartment	28	3.71	1-9	413.39	26-999
Home/House	159	3.21	1-9	310.40	12-2300
Institution	18	3.73	1-9	232.44	75-450
Other	9	3.56	2-8	302.67	50-668
Marital Status:					
Married	140	3.30	1-9	302.51	12-2300
Widowed	51	3.18	1-7	357.83	35-1675
Single	16	4.32	1-9	307.19	30-910
Divorced/ Separated	7	2.85	1-5	337.86	26-955

Table 13. (continued)

Comparison Variable	No. of People	Average No. of Projects	Range of Projects	Average No. of Hours	Range of Hours
Education:					
Under 8th Grade	22	3.22	1-6	250.55	50-668
8 - 11th Grade	45	2.40	1-7	222.22	20-999
H.S. Graduate	65	3.26	1-8	304.66	12-1675
Some College	34	3.76	1-8	443.50	25-2300
College Graduate	24	3.75	1-9	276.38	30-815
Graduate Training	24	4.25	1-9	452.92	20-1296
Occupation:					
Highest Professional	9	4.32	1-6	354.33	136-659
Lower Professional	45	3.51	1-9	370.11	20-1296
Administrative Personnel	14	4.57	1-9	388.14	45-945
Clerical/Sales/ Technician	29	3.48	1-8	273.62	12-700
Skilled Manual	31	2.81	1-9	242.59	20-990
Semi-skilled/Operative	14	2.58	1-8	358.00	20-2300
Unskilled	5	3.01	1-4	283.00	100-580
Homemaker	66	3.21	1-8	302.03	20-1675

[a] See Tough, op. cit., pp. 20-21 and Coolican, op. cit., p. 12 for comparable data.

and highly educated. No discernible trends were obvious for the characteristics of "sex" and "occupation" because of similar percentages or small numbers in the various categories.

Respondents were also asked to make judgements about each project they reported. They were asked about the current status of the project at the time of the interview, the reason for doing the project, the primary planner of the learning activity, the subject matter area studied, and the source of the subject matter. The resulting data are contained in Table 14.

Only about one-quarter of the projects were inactive, perhaps reflecting the role learning continuously plays in fulfilling needs and in satisfying interests.

Table 14. Learning Projects: Supportive Information[a]

Informational Description	No. of Projects[b]	Percent of Projects
Current Status of Projects:		
Inactive	176	24.79%
Active	534	75.21%
Reason for Doing Project:		
To Obtain Credit	27	3.84%
For a Test or Examination	9	1.28%
For Job Improvement/Acquisition	106	15.08%
Enjoyment	485	68.90%
Mixed Reasons	76	10.81%
Primary Planner of Project:		
A Group or its Leader/Instructor	145	20.45%
One Person in One-to-One Situation	73	10.30%
Material/Non-Human Resource	28	3.95%
The Learner Him or Herself	391	55.15%
Mixed (No Dominant type of Planner)	72	10.16%
Subject Matter Area:[c]		
Occupationa/Vocational	115	16.17%
Personal/Family	144	20.25%
Social/Civic	67	9.42%
Self-Fulfillment	385	54.15%
Source of Subject Matter:		
Group/Group Instructor	86	12.11%
Expert	32	4.51%
Books, pamphlets, newspaper	222	31.27%
Programmed Materials	20	2.82%
TV/Radio/Recordings	66	9.30%
Displays/Exhibits/Museums/Galleries	8	1.13%
Friend/Relative/Neighbor	53	7.47%
Mixed Sources	223	31.41%

[a] See Tough, op. cit., pp. 86-88, and Coolican, op. cit., p. 12-13.

[b] Project totals for each major category are not always equal because of occasional non-responses.

[c] See the definitions in Chapter I.

Nearly 70% of all the primary reasons given for undertaking a project were of a purely enjoyment nature. It also turns out that the learner himself or herself plans most of the projects, or an average of 2.14 of all projects (see Table 15).

The subject matter areas studied were varied, although more than half of the projects were reported as self-fulfillment in nature (see the definitions in Chapter I). Some comparisons of the subject matter areas with various demographic variables are shown in a later table. Table 14 also contained information as to the primary source of the subject matter information reported by respondents. Books, pamphlets, and newspapers served as the biggest single source of information. Unfortunately from the researcher's point of view,[2] the community and its resources were little utilized for learning needs.

Table 15. Frequency of Type of Primary Planners of Learning Projects

Primary Planner of Project	Number With At Least One Project	Average No. With Planner
A Group or its Leader/Instructor	86	1.69
One Person in One-to-One Situation	48	1.52
Material/Non-Human Resource	22	1.27
The Learner Him or Herself	183	2.14
Mixed (No Dominant Type)	46	1.57

Table 16 contains some comparison information on the choice of subject matter area according to various demographic characteristics. As can be seen, there was considerable difference in choice according to the various sub-categories. Younger educated people, clerical/sales/technician employees, skilled manual workers, unskilled people, and homemakers were more likely to report self-

Table 16. Comparison of Subject Matter Area By Various Demographic Variables[a]

Comparison Variable	Occupational/ Vocational		Personal/ Family		Social/ Civic		Self-Fulfillment	
	No.	%	No.	%	No.	%	No.	%
Age:								
55-64	85	27.33	72	23.15	23	7.40	131	42.12
65 and Older	30	7.50	72	18.00	44	11.00	254	63.50
	χ^2 = 62.01				Sig. = <.001			
Community:								
Lincoln	80	18.48	95	21.94	47	10.85	211	48.73
Rural/Non-Town	22	16.42	25	18.66	8	5.97	79	58.96
Rural/Small Town	13	9.03	24	16.67	12	8.33	95	65.97
	χ^2 = 13.60				Sig. = <.01			
Sex:								
Male	76	26.86	50	17.67	20	7.07	137	48.41
Female	39	9.11	94	21.96	47	10.98	248	57.94
	χ^2 = 40.34				Sig. = <.01			
Race:								
White American	110	18.12	109	17.96	64	10.54	324	53.38
Black American	0	00.00	3	100.00	0	0.00	0	0.00
Mexican American	5	4.95	32	31.68	3	2.97	61	60.40
	χ^2 = 26.52				Sig. = <.001			
Social Class:								
Lower	4	10.53	8	21.06	0	0.00	26	68.42
Lower Middle	32	12.90	61	24.60	21	8.47	134	54.03
Upper Middle	62	17.82	61	17.53	30	8.62	195	56.03
Upper	17	22.08	14	18.18	16	20.78	30	38.96
	χ^2 = 9.83				Sig. = <.05			

Table 16. (continued)

Comparison Variable	Occupational/ Vocational		Personal/ Family		Social/ Civic		Self-Fulfillment	
	No.	%	No.	%	No.	%	No.	%
Living Arrangement:								
Apartment	23	12.07	22	19.82	17	15.32	49	44.14
Home	87	11.76	104	21.05	36	7.29	267	54.05
Institution	0	0.00	8	11.10	14	19.18	51	69.86
Other	5	15.15	10	30.30	0	0.00	18	54.55
	$\chi^2 = 14.70$				Sig. = <.01			
Marriage Status:								
Married	85	18.44	87	18.87	26	5.64	263	57.05
Widowed	15	8.98	43	25.75	25	14.97	84	50.30
Single	7	10.94	8	12.50	13	20.31	36	56.25
Divorced/Separated	8	42.11	6	31.58	3	15.79	2	10.53
	$\chi^2 = 11.64$				Sig. = <.01			
Education:								
Less than 8th Grade	2	2.90	21	30.43	1	1.45	45	65.22
8 - 11th Grade	11	10.00	20	18.18	13	11.82	66	60.00
High School Graduate	26	12.68	43	20.98	22	10.73	114	55.61
Some College	24	17.65	23	16.91	11	8.09	78	57.35
College Graduate	16	17.98	19	21.35	12	13.48	42	47.19
Graduate Training	36	35.64	18	17.82	8	7.92	39	38.61
	$\chi^2 = 26.59$				Sig. = <.001			
Occupation:								
Highest Professional	13	27.08	6	12.50	6	12.50	23	47.92
Lower Professional	40	26.14	29	18.95	12	7.84	72	47.06
Administrative Personnel	24	37.50	12	18.75	4	6.25	24	37.50
Clerical/Sales/Technician	10	10.53	24	25.26	3	3.16	58	61.05
Skilled Manual	9	10.47	14	16.28	11	12.79	52	60.47
Semi-Skilled/Operative	9	27.27	44	12.12	3	9.09	17	51.52
Unskilled	1	7.69	4	30.77	0	0.00	8	61.54
Homemaker	9	4.23	51	23.94	22	10.33	131	61.50
	$\chi^2 = 34.33$				Sig. = <.001			

[a] Chi-square values are based on the collapsed categories as displayed in Table 9. Percentages are based on comparison variable sub-category totals.

fulfillment projects.

The data in Table 16 were also analyzed by chi-square according to the collapsed categories utilized earlier. Every comparison was significant at the .05 level or beyond. Certainly these findings should suggest several subsequent research ideas.

The fourth hypothesis suggested that no significant differences would be found in the average number of learning projects or hours spent in learning according to various demographic characteristics. As Table 17 and 18 show the null hypothesis is supported almost totally. There were no significant differences in the number of hours spent by the population in a pursuit of learning. When the number of learning projects was examined, three significant differences emerged: The two combined upper class groups carried out more projects than the two combined lower groups; college graduates carried out more projects than non-college graduates; white collar workers carried out more learning projects than did blue collar workers.

Certainly the evidence available from this study shows that older adults are very actively involved with learning. They are a busy group, with lots of additional interests yet to be satisfied, but with several obstacles that may prevent their full participation in learning endeavors. Hopefully, this research will provide assistance to those planning and administering educational programs for the older person and stimulate some additional research.

Table 17. T-test Comparison of Various Demographic Variables with the Number of Hours Spent Annually in Learning

Comparison Variable	No. in Group	Number of Hours Mean	Number of Hours St. Dev.
Age:			
55-64	91	336.74	315.81
65 and Older	123	315.54	304.91
	T value = 0.49	Sig. = N.S.	
Community:			
Urban	126	352.11	310.95
Rural	88	285.10	303.68
	T value = 1.57	Sig. = N.S.	
Sex:			
Male	89	327.65	327.29
Female	125	322.35	296.68
	T value = 1.12	Sig. = N.S.	
Race:			
White American	185	333.52	320.40
Other	29	267.34	219.02
	T value = 1.07	Sig. = N.S.	
Social Class:			
Lower/Lower Middle	99	287.21	314.00
Upper Middle/Upper	115	356.70	302.38
	T value = -1.64	Sig. = N.S.	
Living Arrangement:			
Institution/Other	27	255.85	145.30
Apartment/Home/House	187	334.48	325.01
	T value = -1.24	Sig. = N.S.	

Table 17. (continued)

Comparison Variable	No. in Group	Number of Hours Mean	Number of Hours St. Dev.
Marital Status:			
Married/Widowed	191	318.18	295.77
Not Married	23	377.48	407.23
	T value = -0.87	Sig. = N.S.	
Education:			
College Graduate	48	366.73	298.73
Non-College Graduate	165	312.74	312.68
	T value = 1.09	Sig. = N.S.	
Occupation:			
Blue Collar	115	307.23	342.26
White Collar	98	339.93	262.71
	T value = -0.77	Sig. = N.S.	

Table 18. T-test Comparison of Various Demographic Variables with the Number of Annual Learning Projects

Comparison Variable	No. in Group	Number of Projects Mean	St. Dev.
Age:			
55-64	91	3.43	2.10
65 and Older	123	3.26	1.85
	T value = 0.61	Sig. = N.S.	
Community:			
Urban	126	3.44	2.01
Rural	88	3.17	1.87
	T value = 1.02	Sig. = N.S.	
Sex:			
Male	89	3.19	1.94
Female	125	3.43	1.97
	T value = -0.89	Sig. = N.S.	
Race:			
White American	185	3.29	2.04
Other	29	3.62	1.32
	T value = -0.85	Sig. = N.S.	
Social Class:			
Lower/Lower Middle	99	2.96	1.92
Upper Middle/Upper	115	3.65	1.94
	T value = -2.62	Sig. = <.01	
Living Arrangement:			
Institution/Other	27	3.67	2.13
Apartment/Home/House	187	3.28	1.93
	T value = 0.88	Sig. = N.S.	

Table 18. (continued)

Comparison Variable	No. in Group	Number of Projects Mean	St. Dev.
Marital Status:			
Married/Widowed	191	3.27	1.86
Not Married	23	2.87	2.62
T value = -1.40	Sig. = N.S.		
Education:			
College Graduate	48	4.00	2.13
Non-College Graduate	165	3.15	1.87
T value = 2.51	Sig. = <.02		
Occupation:			
Blue Collar	115	3.02	1.87
White Collar	98	3.69	2.01
T value =-2.53	Sig. = <.02		

References

[1]Roger Hiemstra, "Educational Planning for Older Adults: A Survey of 'Expressive' vs. 'Instrumental' Preferences," International Journal of Aging and Human Development, 4, 1973, pp. 147-156.

[2]See Roger Hiemstra, The Educative Community (Lincoln, Nebraska: Professional Educators Publications, 1972), for a discussion of the community's educational potential.

CHAPTER V

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

The purpose of this research endeavor was to study, analyze, and describe one segment of the adult population, namely the older learner. An attempt was made to understand what older individuals are learning, how much they are learning, and types of learning in which they would like to be involved in the coming years. It is anticipated that the information uncovered will assist in the future improvement of educational opportunity and programming for the older person, will assist adult and continuing educators in improving their own roles as facilitators of learning, and will generate a variety of research and writing.

An Overview

The older person is the largest minority group in the United States and growing larger each year. Current research and writings have suggested that this group could use more educational opportunities in order to lead more satisfying and productive lives; however, available data show that few older people are taking advantage of the formal educational programs that are offered. The question that must be asked is why the older adult learner does not become more involved with adult and continuing education.

The problem of this study was to secure a better understanding of learning interests, activities, and obstacles of the older adult. Utilizing an interview in a field setting, data were collected from 256 Nebraskans, 55 years of age and older. A fairly random sample was obtained, although the study population included more minority group individuals, higher educated people, and more urban residents than would be expected in comparison to 1970 Census data.

The obstacles to learning selected most often were as follows: "don't like to go out at night," "not enough time," "cost," "home responsibilities," and "job responsibilities." The top five course selections as an indication of learning interests included the following: "Stretching Your Retirement Dollar," "Tax Benefits for Older Americans," "Outdoor Flora," "Medical Care in the Retirement Years," and "Laws Affecting the Aged."

There was a statistically significant preference for instrumental forms of learning as opposed to expressive forms. Demographic characteristics were examined in comparison to the instrumental/expressive course choices. Significate differences revealed that males, rural residents, minority group individuals, and married people preferred instrumental type of courses more than their counterparts.

Learning activity was measured though a series of probing questions developed by Tough.[1] The average number of learning projects per person each year was 3.3; the average number of hours in learning was 324.56. "Enjoyment" was the most popular reason for undertaking the learning and the learner himself or herself most often planned the activity. The subject matter area most projects were concentrated in was "self-fulfillment"; "books, pamphlets, and newspapers" were the most common single source of content and information

The learning information was also compared with various demographic variables. Upper-middle and upper class individuals, college graduates, and white collar workers were involved with a significantly greater number of learning projects. However, there were no significant differences in terms of the number of total hours spent each year in learning. Appendix C contains a table showing comparisons of the data for this study with several other studies completed on learning projects.

Recommendations

General Information

The primary obstacles to learning reported in this study have supported those suggested by several authors.[2] Many of the frequently cited obstacles relate to problems the elderly have in availing themselves of institutionally-sponsored programs. Often there are fewer opportunities, courses are not specifically designed for the older person, and the elderly are simply unaware of educational programs in formal settings.

Recommendation No. 1: That educators find new and non-traditional means for making learning opportunities more available to the older person.

Recommendation No. 2: That some of the top ranked obstacles in this study and those noted in other writings be addressed in order that educational opportunities can be utilized by older persons as a means for more fulfilling lives.

Poor health, physical limitations, and psychological problems are also prevalent obstacles to learning for many other people.[3] Interviewers of the older adults were asked to note on the instrument any visible or mentioned disabling health problems, such as blindness, learing limitations, psychological disorders, heart trouble, or physical handicaps. Out of the 214 people, 13 (6%) were so identified with an average of 2.77 learning projects each. This lower average would indicate that health-related obstacles do diminish learning activity somewhat.

Recommendation No. 3: That health educators find means to make learning opportunities more available to the older person with health problems.

The entire instrumental-vs-expressive notion suggests several implications. Older adults seem to be saying they would like more instrumental learning opportunities and they are actually carrying out more instrumental learning. Another implication is that economic factors related to the life style of the older

person may be partially responsible for the learning choices. The fact that four of the top five course selections were related to financial or legal matters lends support to the notion that inflation, fixed incomes, and other economic problems are creating new needs for instrumental knowledge and information.

Recommendation No. 4: That educators provide more instrumental learning opportunities to the older person.

Recommendation No. 5: That better means for facilitating the older learner's participation in instrumental learning be discovered and utilized.[4]

Recommendation No. 6: That the tables containing significant demographic sub-group differences in the choice of instrumental courses be studied and the information utilized in the planning of future educational programs.

Considerable learning activity is taking place among the older population, despite a variety of obstacles. Thus, the evidence of this study should help break down even more some of the myths about the declining abilities and the inactivity of the older person. As was suggested in Chapter I, education and learning can be utilized to replace the lost roles and activities that occur with age and thereby maintain morale, productivity, and a meaning in life.

Recommendation No. 7: That scholars continue to research in and write about the potential and ability that are possible throughout life so any believers in the myths of older age can be helped to behave differently.

Although there is much learning activity in the over 54 age group, there remain many new interests unmet and challenges to be stimulated. Partial justification for such a conclusion comes from the fact that so many course choices of all types were made.

Recommendation No. 8: That the information in Table 6 be utilized as a basis for future program planning and for continued efforts in the assessment of needs.

Much interest and activity exists around the United States in establishing educational programs for the urban elderly. "In a recent survey . . . the greatest interest was shown by participating schools in developing programs for the urban elderly."[5] However, we can't forget the rural and small town older person. This study showed considerable individual learning activity taking place in rural areas but not nearly as much in small towns. Perhaps the various sub-groups of people in this study found to have been involved with fewer learning projects than their counterparts simply do not have the same accessibility to learning opportunities, resources, and stimulation.

Recommendation No. 9: That educational leaders and institutions in the United States renew their efforts to serve rural and small town older learners.

Recommendation No. 10: That the availability of learning opportunity to the various demographic sub-groups shown in this study to have fewer learning projects be examined and analyzed for future program planning purposes.

The homemaker was shown in this study (see Table 13) and in the Coolican study[6] to have relatively few learning projects compared to several other occupational classifications. The availability of time when maintaining a home and limited access to educational resources no doubt accounts for some of the differences. At the same time the homemaker made many course choices of things she would like to do if there were no limiting constraints.

Recommendation No. 11: That the educational profession study ways to make learning opportunities more available to the older homemaker.

Recommendation No. 12: That reasons for lower participation in actual learning activity by the older homemaker be examined and analyzed to assist in future program planning.

There was considerable learning activity of a self-fulfillment or personal nature. Nearly three quarters of all the reported learning projects were in the self-fulfillment or personal/family categories. In addition, a frequently cited reason for undertaking a learning project was for pure enjoyment. Call it the leisure society, changing values, or the back to earth movement, people appear to be entering a stage of personal growth and satisfaction seeking.[7]

Recommendation No. 13: That educational program planners utilize the information in Table 14 relative to subject matter areas of actual learning for future program development. (Special attention should be given to facilitating learning of a self-fulfillment nature.)

There was little actual learning activity of a credit nature or because of some test or examination. Other related studies have reported similar findings (see Table 22 in Appendix C).

Recommendation No. 14: That educators de-emphasize credit programs, the use of testing, and other elements of traditional schooling in the administration of future programs for the older learner.

Recommendation No. 15: That educators help the older learner to accept and be made aware of more non-traditional learning opportunities in order that negative stereotypes about education can be diminished.

Considerable television watching was reported to the interviewers. As a matter of fact, an immense problem interviewers had was determining what was actual learning as opposed to entertainment or recreation. One person may have watched the "Watergate" hearings purely for entertainment reasons. Another person may have been truly enlightened, stimulated to carry out additional reading and study, and even spirited into an active involvement with some political campaign. At any rate, considerable television viewing is taking place among the older adults in the State of Nebraska.

Recommendation No. 16: That all aspects of the television medium continuously be studied and experimented with relative to the education of older adults.

Perhaps the clearest implication from this study is that educators must learn how to remove their institutional blinders and recognize all of the learning going on and needed outside of the institutional structure. This will require educators working in new roles, making learning opportunities available in new settings, and helping to make available more resources for learning.

Recommendation No. 17: That educators learn how to facilitate the use of entire communities and their many resources for learning.[8]

The Adult and Continuing Educator[9]

There are several findings from the data that have specific implications for the adult and continuing educator. It is hoped this study and the other available or emerging data on learning projects will be explored long and hard. Roles will need to change, the nature of adult education training programs probably will require adjustment, and ways in which program teachers interact with the learners will require examination and modification.

If a good deal of learning is going on outside the institutionally-sponsored program, how can the adult educator successfully intervene? Should there even be an intervention? When should any interventions be undertaken? These are heavy philosophical and methodoligcal questions that must be debated at national meetings and in the field's publications.

Recommendation No. 18: That a dialogue pertaining to the role of the adult and continuing educator with learning projects be initiated by national leaders in the field.

Recommendation No. 19: That implications of the above discussion for the

training of adult and continuing educators be derived, discussed in the field's publications, and experimented with in graduate training programs across the country.

Several study findings raise even more specific questions: How can learning projects be facilitated? How can projects be initiated? What kinds of resources can be developed for use in learning projects? How can the self-directed learner be made more efficient and the learning be accomplished more effectively? Why are so few experts chosen for assistance or so little programmed instruction used in learning projects? The answers to these questions must come from future study.

Recommendation No. 20: That the above questions be stimuli for future research, discussion, thought, experimentation, and writing by adult and continuing educators.

Methodological Considerations

There are a few methodological implications as a result of this study. Certainly the probing interview technique has some real strengths that should be considered by educators. At the same time, the researcher wonders if all kinds and amounts of learning are uncoverable with the interviewing technique as it now exists. Perhaps follow-up visits and other techniques are required.

Recommendation No. 21: That educators be trained in the use of the probing interview as a needs assessment and research tool.

Recommendation No. 22: That the system for uncovering learning by adults be continuously developed, refined, and reported.

Additional Research Needs

A study of this nature would be quite incomplete if it did not give birth to some new questions and ideas. Therefore, following are several questions for other researchers to consider. Some of the questions could be considered as

hypotheses to be tested and others could be utilized as bases for exploratory studies.

1. What obstacles actually stop or prevent older learners from participating in learning projects? Are such obstacles prevalant throughout the United States or across various demographic sub-groupings?

2. Are offerings by educational institutions across the country mainly expressive in nature?

3. Will the findings on I-VS-E choices in comparison with demographic variables hold throughout the United States?

4. What kind of needs are being fulfilled through the choice and carrying out of instrumental types of learning?

5. Will the findings on learning projects by older adults hold throughout the United States?

6. How can learning projects be initiated most effectively?

7. Can material resources be made more helpful and attractive to learning project initiators?

8. How could television be utilized in learning projects?

9. Could television be utilized more effectively in aiding the learning efforts of older adults?

10. Why do divorced or separated people spend more time on vocational/occupational learning projects? (That question is just an example of the type of questions possible to raise in examining various of the comparisons between learning project information and the demographic variables.)

11. Why do the number of learning projects diminish with age? Obstacles? Availability? Interest?

12. How can the older homemaker be assisted with learning activity to have a more satisfying life? Should she?

13. How can the learning efforts of the self-directed learner be made more effective and efficient?

14. Is poor health a factor in the amount of learning undertaken in a year?

15. Do small town older learners throughout the United States undertake fewer learning activities than their big city counterparts? If yes, why?

16. How can the adult and continuing educator be more helpful within the world of learning projects?

Conclusions

Older people can, want to, and do learn? It is hoped that this study provides a little more evidence to dispell some of the negative stereotypes about the elderly that have persisted over time. As a matter of fact, it is hoped that several stereotypes are feeling some loose and vibrating underpinnings. The minority person, the less educated individual, the blue collar workers, and the lower class person in this study were all busily engaged in many hours of learning each year.

In addition, the self-planner, independent learner is very visible in Nebraska as he or she is in other parts of the country.[10] Much of that learning is instrumental in nature.

One final conclusion relates to the potential of the older persons themselves. The immense learning involvement of the study population, their observed and reported enthusiasm to assist with the research activity, and their keen interest in the fact that someone cared to know what they are doing made this research project most rewarding. As the elderly are the fastest growing minority in the United States, everything possible should be done to serve them better. Hopefully, the information uncovered through this study will help in the facilitation of better lives for older persons and a maximization of that existing potential.

An Invitation

No research effort and corresponding analysis endeavor should end with the completion of a report. It is hoped that interested readers will be stimulated to make their own inquiries into the topic of the older adult and learning. Questions, comments, suggestions, and challenges are welcome and sought.

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References and Footnotes

1

Tough, op. cit.

2

Several chapters in Grabowski and Mason, op. cit., Goodrow, op. cit., and previous writings by Hiemstra, 1972, op. cit. discuss various obstacles.

3

W. Dean Mason, "Aging and Lifelong Learning," Journal of Research and Development in Education, 7, Summer, 1974, p. 73.

4

Because so many of the credit and non-credit learning opportunities offered by educational institutions are the more glamorous sounding expressive courses (art, travel, music, crafts, etc), the older person is often reluctant to take or is unaware of instrumental courses. The Gerontology Center at the University of Nebraska-Omaha recently attempted to offer and publicize a number of instrumental-type activities. The activities had very low participation rates and some had to be cancelled. Perhaps, too, the titles often utilized have unappealing connotations.

5

Mason, op. cit., p. 73. In addition, DeCrow, op. cit., p. 6[illegible] found that more than 50% of the educational offerings took place in urban or suburban areas.

6

Coolican, op. cit., or refer to Table 22 in Appendix C.

7

The researcher recently tested this conclusion in his church. A mailed questionnaire was returned by 40 people, more than half of whom were over the age of 50. Out of 184 course choices made from a list of potential courses the church could sponsor, 65 (35.3%) were in personal growth or personal communication skill building areas. However, the related courses represented only 24% of the total list of courses.

8

Arguments related to this recommendation have been made elsewhere by the author. See Roger Hiemstra, The Educative Community (Lincoln, Nebraska: Professional Educators Publications, 1972), and "Community Adult Education in Lifelong Learning," Journal of Research and Development in Education, 7, Summer, 1974, pp. 34-44.

9

Tough, op. cit., addresses in greater detail most of the issues raised in this section.

10

See Table 22, Appendix C, and the corresponding related original references.

APPENDIX A

DATA COLLECTION MATERIALS AND RELATED INFORMATION

ID _____

Community _____ Quadrant _____

S _____ R _____ SC _____ LA _____

(Introduce yourself. Say, I'm helping the Adult Education Department of the University of Nebraska discover ways to serve better the people of Nebraska. Our research is about people and the sorts of things they learn. We would also like to determine what are other things they would like to learn about in the future. Are you or is some person in the household 55 years of age or older?

I'm interested in discovering your learning efforts in the past year and your potential learning needs so that the Adult Education Department might be better prepared to help the people of Nebraska.)

What is your age? _____ Marital status? _____

How many years of formal education (P) _____

Other types of training or education (P) _____

_____

Profession or occupation (P) _____

_____

Many things stop people from taking a course of study, learning a skill, or following a topic of interest. Which of the following do you feel are important in keeping you from learning what you want to learn? I'll read them to you and you may select as many as you would like by indicating yes or no.

____ COST
____ NOT ENOUGH TIME
____ HOME RESPONSIBILITIES
____ JOB RESPONSIBILITIES
____ AMOUNT OF TIME REQUIRED TO COMPLETE A COURSE OR PROGRAM
____ I'M TOO OLD TO BEGIN LEARNING
____ NO INFORMATION ABOUT WHERE I CAN GET WHAT I WANT
____ COURSES I WANT AREN'T SCHEDULED WHEN I CAN ATTEND
____ STRICT ATTENDANCE REQUIREMENTS
____ LOW GRADES IN THE PAST
____ COURSES I WANT DON'T SEEM TO BE AVAILABLE
____ TOO MUCH RED TAPE IN GETTING ENROLLED
____ I DON'T HAVE ENOUGH ENERGY AND STAMINA
____ I DON'T ENJOY STUDYING
____ COURSES OFTEN ARE NOT INTERESTING
____ NO TRANSPORTATION AVAILABLE
____ I'M TIRED OF SCHOOL AND CLASSROOMS
____ I DON'T MEET REQUIREMENTS TO BEGIN A PROGRAM
____ NO WAY TO GET CREDIT FOR A DEGREE
____ DON'T KNOW WHAT I'D LIKE TO LEARN
____ FRIENDS OR FAMILY DON'T LIKE THE IDEA OF MY TAKING COURSES
____ DON'T LIKE TO GO OUT AT NIGHT
____ MY HEALTH IS BAD
____ NO PLACE TO STUDY OR PRACTICE
____ NOT CONFIDENT OF MY ABILITY

ID_____

Suppose you had an opportunity tomorrow to enroll in an adult education course that met once a week for two hours for six consecutive weeks. By this I mean that you had the time, the finances, and the transportation to wherever the course would be offered. In which of the following courses might you be interested in enrolling. I will read them to you and you may select as many as you have an interest in by indicating yes or no.

____ ASTRONOMY: FROM MYTH TO SCIENCE
____ STRETCHING YOUR RETIREMENT DOLLAR
____ THE ARCHAEOLOGY OF MEXICO
____ CONVERSATIONAL SPANISH
____ FILMS AND PHOTOGRAPHY
____ MODERN RELIGIONS
____ THREE BLACK AUTHORS
____ OUTDOOR FLORA
____ WILLS AND ESTATE PLANNING
____ NUTRITION AND THE AGING PROCESS
____ LEISURE ACTIVITIES FOR RETIREMENT YEARS
____ NATURE PHOTOGRAPHY
____ READING EFFICIENCY
____ NEW OPPORTUNITIES IN RETIREMENT
____ THE HIGH COST OF DYING
____ FINANCIAL ASPECTS OF RETIREMENT COUNSELING
____ BASICS OF LIP READING
____ MEDICAL CARE IN THE RETIREMENT YEARS
____ FUNDAMENTALS OF INVESTING
____ TOURISM AND YOUR TRAVEL DOLLAR
____ TAX BENEFITS FOR OLDER AMERICANS
____ MUSHROOM HUNTING
____ ROCK COLLECTING
____ FOOT PROBLEMS AND CARE
____ ART APPRECIATION
____ THE NATURE OF PREJUDICE
____ BEGINNING PAINTING
____ LAWS AFFECTING THE AGED
____ INTRODUCTION TO CRAFTS
____ MUSIC APPRECIATION
____ MID-WESTERN BIRDS
____ PHYSICAL FITNESS WITH FUN

Are there any other course titles or topics that you would like to add?

_____

_____

_____

_____

_____

ID _____

Now I'm interested in listing the things you have tried to learn during the past year. When I say "learn" I don't just mean learning the sorts of things that people learn in schools and colleges. I mean any sort of deliberate effort at all to learn something, or to learn how to do something. Perhaps you tried to get some information or knowledge -- or to gain new skills or improve your old ones -- or to increase your sensitivity or understanding or appreciation. Can you think of any efforts like this that you have made during the past 12 months?

(P) Try to think back over all of the past 12 months -- right back to _____ of last year. I am interested in any deliberate effort you made to learn anything at all. Anything at all can be included, regardless of whether it was easy or hard, big or little, important or trivial, serious or fun, highbrow or lowbrow.

(P) It doesn't matter when your effort started, as long as you have spent at least a few hours at it sometime since last (month)

(P) We want to get as complete a list as possible, because we think that people make far more attempts to learn than anyone realizes. We can include any sort of information--knowledge--skill--or understanding at all that you have tried to gain -- just as long as you spent at least a few hours at it sometime during the past 12 months.

(P) Can you recall any other efforts to learn that were related to your home or your family? Anything related to your hobbies or recreation? Your job? Your responsibilities in various organizations, or clubs, or in a church or synagogue, or on a committee, or some other responsibilities? Anything related to some teaching, writing, or research that you do outside of your job?

(P) Going back over the past 12 months, can you recall any other times that you tried to learn something by reading a book? When you read newspapers or magazines, do you read certain topics or sections because you want to remember the content? Have you tried to learn anything else from booklets, pamphlets, or brochures? From memos, letters, instructions, or plans? From technical or professional literature? From material from a library? From workbooks or programmed instruction? From an encyclopedia or other reference work?

ID _____

(P) Have you learned anything at all from a medical doctor? From a lawyer? From a counselor or therapist? From a financial or tax advisor? From a social worker? From a private teacher? From a specialist or expert? From individual private lessons?

(P) Have you learned anything from documentaries or courses on television? From TV news or some other TV programs? From radio? In a theatre? Have you tried to learn from conversations? Or from asking questions: that is, have there been any topics or areas that you have tried to learn about from your friends or other people? Have you deliberately sought to learn by seeking out stimulating individuals? Have you tried to learn anything from your spouce or other relatives? From a neighbor?

(P) Perhaps you have learned something in some group or other? Perhaps in some meeting or discussion group? From attending a conference? From a retreat or weekend meeting? From an institute or short course or workshop? From a committee or staff meeting? From taking a course? From attending evening classes, or lectures, or a speech? From a correspondence course? From attending a club or group meeting?

(P) Perhaps tape recordings or phonograph records or "a language lab" helped you learn something during the past year? Have you learned in a church or synagogue? In a college, university, or school? In some community organization? In a company or factory or office? In a government program? In an exhibition, museum, or art gallery? In some vacation spot?

Now I have a list of some of the things people learn (sheet one). It may remind you of other things that you have tried to learn during the past 12 months. Take as long as you want to read each word, and to think about whether you have tried to learn something similar. (Give him or her the sheet, or read it aloud if necessary.)

OK, that gives us a fairly complete list. If you suddenly think of something else you have learned, though, please tell me.

ID _____

Now I want to find out a bit more about each of your efforts to learn. Let's begin with the first one on the list. It was your efforts to learn _____. Here is a sheet that will help us learn more about your efforts and estimate the number of hours that you spent at learning this, and the number of hours spent at planning and preparing for that learning. (Hand him or her the second sheet.)

(If possible, pin down and record just what the learning segments were. For example, you could ask, "How did you go about learning this? How was it learned? What did you do? Was there anything else you did to learn _____?" Examples that you might record to help understand the total effort are: Watched an expert, listened to a record, read, practiced, attended a meeting, etc. This list of activities is primarily for your benefit in helping the person estimate his or her time accurately: we do not need the data for any specific purpose other than it might help you later determine the subject matter source. In other words, don't make any special effort to get it or to record it carefully, but on the other hand don't discard it either.)

(Ask for a time estimate in total number of hours. If the number of hours is below 14, check two criteria. First, "Within some six-month period during the past year, did you spend at least <u>five</u> hours at the learning itself--that is, at the _____ learning effort." Second, "Within some six-month period or shorter period during the past year, did you spend at least seven hours altogether on the learning effort?" If both criteria are met write yes and proceed; if both are not met write no and move to the next learning project.)

(Ask them to select whether they have been active or not active.)

(Determine their reason for undertaking the project. Ask, "in any of your efforts on the learning endeavor, was <u>credit</u> any part of your motivation? That is, did you hope to use any of your learning efforts for academic credit--towards some degree, certificate, diploma, or grade achievement? (Pause) Was any of your learning directed toward passing a test, examination, or course--or toward some license or a driving test? (Pause) Or was it toward some requirement or examination or upgrading related to a job? (Pause) Or did you undertake the learning activity for your own enjoyment or self-improvement? NOTE: you will need to determine the primary reason.)

Now we are going to think about your learning effort and try to decide who or what was the director or leader. That is, who decided <u>what</u> you would learn--and <u>how</u> you would learn--whenever you spent some time trying to learn? Here is a sheet explaining what I mean (sheet three). (If no one resource was primarily (51%) responsible, classify it as mixed. If he or she does not seem to understand, or if you feel doubtful about the response, ask who the <u>particular</u> director or leader was. If you anticipate difficulty or if the learner asks, say that we are interested in who the leader was for the past 12 months rather than earlier.)

(Finally, determine the major source of subject matter. That is, what resource provided <u>most</u> of the content--a book, a pro ski instructor, a discussion group, a television broadcast, etc.)

(Repeat for each learning project, recording the appropriate data.)

That completes the interview. Thank you very much for your time and assistance. I think your efforts will help to make education more meaningful in the lives of many adults.

ID _____

Learning project #( ) _____

How was it learned? _____

Number of hours? _____ (Criteria check _____)

Not very active now _____ or Definitely active now _____

Reason for project _____

Director of learning _____

Source of subject matter _____

Learning project #( ) _____

How was it learned? _____

Number of hours? _____ (Criteria check _____)

Not very active now _____ or Definitely active now _____

Reason for project _____

Director of learning _____

Source of subject matter _____

Learning project #( ) _____

How was it learned? _____

Number of hours? _____ (Criteria check _____)

Not very active now _____ or Definitely active now _____

Reason for project _____

Director of learning _____

Source of subject matter _____

Learning project #( ) _____

How was it learned? _____

Number of hours? _____ (Criteria check _____)

Not very active now _____ or Definitely active now _____

Reason for project _____

Director of learning _____

Source of subject matter _____

Some things that people learn about

1. A sport or game; swimming; dancing; bridge
2. Current events; public affairs; politics; peace; biography
3. Sewing; cooking; homemaking; entertaining
4. Driving a car
5. Home repairs; woodworking; home improvement project; decorating and furniture
6. A hobby or craft; collecting something; photography
7. Raising a child; discipline; infant care; child's education
8. Nature; agriculture; birds
9. Mathematics; statistics; arithmetic
10. Speed reading; effective writing; public speaking; vocabulary; literature
11. Science; astronomy; man in space
12. Health; physical fitness; posture; clothes; appearance
13. History; geography; travel; some region, city, or neighborhood
14. Personal finances; savings; insurance; investing; purchasing something
15. Psychology; effective relationships with people; groups; leadership; social skills
16. Typing; data processing; mechanical skill
17. Some personal problem; mental health; an emotional problem; an illness or medical condition
18. Various careers; choosing an occupation; finding a job
19. Gardening; landscaping
20. Something related to a job or responsibility or decision
21. Musical instrument; singing; music appreciation
22. Professional or technical competence; sales skills; how to teach or supervise
23. Some aspect of religion; ethics; philosophy; moral behavior
24. Current changes in society; the future; problems in cities; pollution; sociology
25. Relationship with the opposite sex; manners; marriage; relationships within the family
26. Art; painting; architecture; the opera; movies; television
27. Business management; economics; business
28. Sensory awareness; human potential; communication; understanding oneself; efficiency
29. New techniques; a new way of doing something; an innovation
30. Spanish; French; some other language

SHEET ONE

1. We need your best guess about the total amount of time that you spent at all aspects of this particular learning effort during the past 12 months.

Please include the time you spent reading -- listening -- observing -- or learning in some other way -- if your main purpose during that activity was to gain and retain certain knowledge or skill. In other words, we will include all the times during which at least half of your total motivation was to gain certain knowledge or skill, and to retain it until at least two days later.

In addition to the time you spent at the actual learning itself, please include all the hours that you spent, during the past 12 months, at deciding about the learning, planning the learning, and preparing and arranging for it. This can include any time spent at deciding whether to proceed with the learning -- deciding what to learn -- deciding how to learn -- deciding where to get help -- seeking advice about these decisions (from other people or from printed materials) -- traveling to some of the learning activities, such as a meeting or practice session or library -- arranging appropriate conditions for learning -- choosing the right book or person for the actual learning -- obtaining that book or reaching that person.

Of course, you cannot remember exactly how many hours, so just give your best guess. If you wish, just choose the closest number from the following list:

1 3 6 10 20 40 70 100 140 180 or more

---

2. Which of these following two answers best describes this particular learning effort at the present time:

(A) NOT VERY ACTIVE -- that is, you have dropped it or completed it, or you have set it aside for a while (or you are spending much less time at it now than you were before)

OR

(B) DEFINITELY ACTIVE -- that is, you are definitely continuing this learning effort right now, and you are spending about as much time as ever at it.

SHEET TWO

There are four different sorts of learning efforts, according to who directs them. That is, a person's efforts to learn can be classified according to who was responsible for the day-to-day planning. We have to look at who planned or decided exactly what and how the person should learn at each session. For example, who decided what the person should read or hear, or what else he or she should do in order to learn?

1. Group-planned learning

In some learning projects, you may decide to attend a group and let the group (or its leader or instructor) decide what and how you learn during each session. A group may be of any size, with a minimum of five persons. Examples might be lectures, study groups, workshops, small informal groups, or conferences.

2. One-to-one learning

In some learning projects, the planning and deciding of what to learn and in what order is handled by one person, who helps the learner in a one-to-one situation. That is, there is one helper (or instructor, teacher, expert, or friend) and there is one learner. These two persons interact usually face-to-face, although it could be by telephone or by correspondence. Even if 2-4 learners were receiving individualized attention from one other person at the same time, it would be included here.

3. Material Resource learning

In these learning projects, the major part of the detailed direction on what to learn and what to do at each session resides in some material resource, object, or nonhuman resource. A programmed instruction book, a set of tape recordings, or a series of TV programs are examples. The learner follows the programs or materials and they tell him or her what to do next.

4. Self-planned learning

In other learning projects, the learner him or herself retains the major responsibility for the day-to-day planning and decision-making. He may get advice from various people and use a variety of materials and resources, but he retains the responsibility for deciding what activities to try next, what to read, and what skill or knowledge should be next in the sequence. Instead of turning the job of planning over to someone else, he makes the day-to-day decisions alone.

The Elderly and Learning Projects--Data Sheet

(A nine "9" always equals no response or answer)

Interview ID _____ (Print here)	1-3	_ _ _
Card Number	4	1
Community 1=Lincoln 2=Rural 3=Other	5	_
Quadrant 1=I 2=II 3=III 4=IV 5=Other	6	_
Sex 1=Male 2=Female	7	_
Race 1=Caucasian 2=Negroid 3=Mexican-American 4=Other	8	_
Social Class 1=Lower 2=Middle-Blue Collar 3=Middle-White Collar 4=Upper	9	_
Living Arrangements 1=Apartment 2=Home 3=Institution 4=Other	10	_
Age (actual)	11-12	_ _
Marital Status 1=Married 2=Married/Widowed 3=Single 4=Divorced/Separated	13	_
Years of Formal Education 1=Under 8th grade 2=8-11th grade 3=H.S. grad. 4=Some college 5=college grad. 6=graduate training	14	_
Other Training 1=Vocational/technical school 2=On the job training 3=correspondence study 4=business school 5=other	15	_
Profession or Occupation 1=Higher exec./major professional 2=Business manager/lessor profes. 3=Administrative personnel 4=Clerical, sales, technicians 5=Skilled manual employee 6=Machine operator/semi-skilled 7=Unskilled 8=Homemaker	16	_
1. Obstacles to learning 1=Yes 2=No		
Cost----------	17	_
Not enough time----------	18	_
Home responsibilities----------	19	_
Job responsibilities----------	20	_
Amount of time required to complete program---	21	_

Obstacles (continued) 1=Yes 2=No

I'm too old to begin learning----------	22	—
No information about what I want----------	23	—
Courses aren't scheduled when I can attend---	24	—
Strict attendance requirements----------	25	—
Low grades in the past----------	26	—
Courses don't seem to be available----------	27	—
Too much red tape in getting enrolled--------	28	—
I don't have enough energy and stamina-------	29	—
I don't enjoy studying----------	30	—
Courses often are not interesting----------	31	—
No transportation available----------	32	—
I'm tired of school and classrooms----------	33	—
I don't meet requirements to begin----------	34	—
No way to get credit for a degree----------	35	—
Don't know what I'd like to learn----------	36	—
Friends or family don't like the idea--------	37	—
Don't like to go out at night----------	38	—
My health is bad----------	39	—
No place to study or practice----------	40	—
Not confident of my ability----------	41	—

2. Course selection 1=Yes 2=No

Astronomy: From myth to science----------	42	—
Stretching your retirement dollar----------	43	—
The archaeology of Mexico----------	44	—
Conversational Spanish----------	45	—
Films and photography----------	46	—
Modern religions----------	47	—
Three Black authors----------	48	

Courses (continued) 1=Yes 2=No		
Outdoor flora	49	—
Wills and estate planning	50	—
Nutrition and the aging process	51	—
Leisure activities for retirement years	52	—
Nature photography	53	—
Reading efficiency	54	—
New opportunities in retirement	55	—
The high cost of dying	56	—
Financial aspects of retirement counseling	57	—
Basics of lip reading	58	—
Medical care in the retirement years	59	—
Fundamentals of investing	60	—
Tourism and your travel dollar	61	—
Tax benefits for older Americans	62	—
Mushroom hunting	63	—
Rock collecting	64	—
Foot problems and care	65	—
Art appreciation	66	—
The nature of prejudice	67	—
Beginning painting	68	—
Laws affecting the aged	69	—
Introduction to crafts	70	—
Music appreciation	71	—
Mid-Western birds	72	—
Physical fitness with fun	73	—

3. Learning projects information

Number of occupational, vocational projects	74-75	__
Number of personal, family projects	76-77	__
Number of social, civic projects	78	__
Number of learning for self fulfillment projects	79-80	__
Learning project #1: (Card two; 1-3,5-16 dup.)	4	2
a. Estimated number of hours/project	17-19	__
b. How active 1=not very active now 2=definitely active now	20	__
c. Primary reason 1=credit 2=test,exam. 3=job 4=enjoyment 5=mixed	21	__
d. Primary director of learning 1=group 2=one-to-one 3=material resource 4=self-planned learning 5=mixed	22	__
e. Source of subject matter 1=group,group instruct. 2=friend,relative,neighbor 3=expert 4=books,pamphlets,newspaper 5=programmed materials 6=TV,radio, recordings, casettes 7=displays,exhibits,museums,galleries 8=mixed	23	__

#2		#3		#4		#5		#6	
24-26	___	31-33	___	38-40	___	45-47	___	52-54	___
27	__	34	__	41	__	48	__	55	__
28	__	35	__	42	__	49	__	56	__
29	__	36	__	43	__	50	__	57	__
30	__	37	__	44	__	51	__	58	__
#7		#8		#9		#10(card 3)		#11	
59-61	___	66-68	___	73-75	___	17-19	___	24-26	___
62	__	69	__	76	__	20	__	27	__
63	__	70	__	77	__	21	__	28	__
64	__	71	__	78	__	22	__	29	__
65	__	72	__	79	__	23	__	30	__
#12		#13		#14		#15		#16	
31-33	___	38-40	___	45-47	___	52-54	___	59-61	___
34	__	41	__	48	__	55	__	62	__
35	__	42	__	49	__	56	__	63	__
36	__	43	__	50	__	57	__	64	__
37	__	44	__	51	__	58	__	65	__

Miscellaneous Notes for Interviewers

Do not interrupt the person's list of learning projects in order to ask criterion questions unless it is clear that the person is far off the track. Whenever there is a long pause, though, you may want to clarify the one or two or three possible learning projects that have just been mentioned. Use all your insight and questioning skill in order to understand just what the real focus was. Try to become precise about just what the person was trying to learn. Especially if he selects one of the methods or subjects from our lists, try to get him or her to use his or her own phrase rather than ours. Record the desired knowledge and skill, the task or responsibility, the question or interest, or whatever the focus was.

Do not quarrel with the person's decisions and data, but do sometimes make one or two attempts to check his understanding of the question or to clarify his answer. Record for me any doubts you have about the responses you get.

Whenever the person mentions some activity or some area of his life that you think might have produced other learning projects, too, ask him about this possibility.

APPENDIX B

MISCELLANEOUS

TABLES

INSTRUMENTAL

AND

EXPRESSIVE

PREFERENCES

Table 19. Crossbreak Comparisons of Various Demographic Variables with Instrumental or Expressive Learning Projects[a]

Comparison Variable	Instrumental No.	Instrumental %	Expressive No.	Expressive %	Totals
Age:					
55-64	54	73.0	20	27.0	74
65 and Older	62	60.2	41	39.8	103
Totals	116		61		177
$\chi^2 = 2.57$	Sig. = N.S.				
Sex:					
Female	59	59.0	41	41.0	100
Male	57	74.0	20	26.0	77
Totals	116		61		177
$\chi^2 = 3.71$	Sig. = <.05				
Location:					
Urban	60	59.4	41	40.6	101
Rural	56	73.7	20	26.3	76
Totals	116		61		177
$\chi^2 = 3.31$	Sig. = <.05				
Occupation:					
Blue Collar	53	66.3	27	33.8	80
White Collar	63	65.6	33	34.4	96
Totals	116		60		176
$\chi^2 = .01$	Sig. = N.S.				
Education:					
College Graduate	23	57.5	17	42.5	40
Less than College Grad.	93	68.4	43	31.6	136
Totals	116		60		176
$\chi^2 = 1.18$	Sig. = N.S.				

Table 19. (continued)

Comparison Variable	Instrumental No.	Instrumental %	Expressive No.	Expressive %	Totals
Race:					
White American	100	65.4	53	34.6	153
Other	16	66.7	8	33.3	24
Totals	116		61		176
χ^2 = .01	Sig. = N.S.				
Marital Status:					
Married	88	73.9	31	26.1	119
Not Married	28	48.3	30	51.7	58
Totals	116		61		177
χ^2 = 10.27	Sig. = <.005				

[a] Instrumental projects preference was determined to be when a person had carried out more instrumental projects than expressive projects (vice versa for expressive preference). In addition, 79 individuals had an equal number of instrumental and expressive learning projects and were not included in this table. There were two instances of non-response.

Table 20. Crosstreak Comparisons of Various Demographic Variables with All Instrumental or Expressive Learning Preferences

Comparison Variable	Instrumental (I) No.	%	Expressive (E) No.	%	I = E[a] No.	%	Totals
Location:							
Urban	82	56.6	49	33.8	14	9.7	145
Rural/Non-Town	22	57.9	7	18.4	9	23.7	38
Rural/Small Town	54	74.0	12	16.4	7	9.6	73
Totals	158		68		30		256
	$\chi^2 = 14.56$		Sig. = <.01				
Sex:							
Male	75	71.4	20	19.0	10	9.5	105
Female	83	55.0	48	31.8	20	13.2	151
Totals	158		68		30		256
	$\chi^2 = 7.24$		Sig. = <.05				
Race:							
White American	133	58.6	66	29.1	28	12.3	227
Other	25	86.2	2	6.9	2	6.9	29
Totals	158		68		30		256
	$\chi^2 = 8.68$		Sig. = N.S.				
Social Class:							
Upper	6	37.5	8	50.0	2	12.5	16
Upper Middle	69	63.3	32	29.4	8	7.3	109
Lower Middle	77	66.4	23	19.8	16	13.8	116
Lower	6	40.0	5	33.3	4	26.7	15
Totals	158		68		30		256
	$\chi^2 = 14.07$		Sig. = <.05				

[a] In thirty cases the number of instrumental choices equaled the number of expressive choices.

Table 20. (continued)

Comparison Variable		Instrumental (I) No.	%	Expressive (E) No.	%	I = E[a] No.	%	Totals
Living Arrangement:								
Apartment		22	68.8	8	25.0	2	6.3	32
Home/House		121	62.7	48	24.9	24	12.4	193
Institution		10	45.5	9	40.9	3	13.6	22
Other		5	55.6	3	33.3	1	11.1	9
	Totals	158		68		30		256
		$\chi^2 = 4.35$		Sig. = N.S.				
Age:								
55-64		67	67.7	24	24.2	8	8.1	99
65 and Older		91	58.0	44	28.0	22	14.0	157
	Totals	158		68		30		256
		$\chi^2 = 3.08$		Sig. = N.S.				
Marital Status:								
Married		107	66.0	35	21.6	20	12.3	162
Widowed		38	58.5	19	29.2	8	12.3	65
Single		8	38.1	11	52.4	2	9.5	21
Divorced/Separated		5	62.5	3	37.5	0	0.0	8
	Totals	158		68		30		256
		$\chi^2 = 10.90$		Sig. = N.S.				
Education:								
Under 8th Grade		18	75.0	2	8.3	4	16.7	24
8-11th Grade		38	61.3	13	21.0	11	17.7	62
H.S. Graduate		53	64.6	21	25.6	8	9.8	82
Some College		20	54.1	14	37.8	3	8.1	37
College Graduate		14	56.0	10	40.0	1	4.0	25
Graduate Training		14	56.0	8	32.0	3	12.0	25
	Totals	157		68		30		255
		$\chi^2 = 13.26$		Sig. = N.S.				

Table 20. (continued)

Comparison Variable	Instrumental (I) No.	%	Expressive (E) No.	%	I = E[a] No.	%	Totals
Occupation:							
Higher Executive/ Professional	8	72.7	1	9.1	2	18.2	11
Lower Executive/ Professional	30	65.2	13	28.3	3	6.5	46
Administrative Personnel	10	62.5	5	31.3	1	6.3	16
Clerical, Sales, Technicians	24	61.5	13	33.3	2	5.1	39
Skilled Manual Employees	28	68.3	11	26.8	2	4.9	41
Machine Operator/ Semi-Skilled	11	68.8	1	6.3	4	25.0	16
Unskilled	5	62.5	1	12.5	2	25.0	8
Homemaker	41	52.6	23	29.5	14	17.9	78
Totals	157		68		30		255
	χ^2 = 18.31		Sig. = N.S.				

Table 21. T-test Comparisons of Various Demographic Variables with the Number of Instrumental and Expressive Learning Projects

Comparison Variable	No. in Group[a]	Instrumental Mean	Instrumental St. Dev.	Expressive Mean	Expressive St. Dev.
Age:					
55-64	101	2.03	1.76	1.03	1.21
65 and Older	155	1.38	1.33	1.08	1.26
		T value = 3.29 Sig. = <.01		T value = -.30 Sig. = N.S.	
Sex:					
Female	105	1.58	1.45	1.23	1.30
Male	151	1.74	1.66	.82	1.10
		T value = -.85 Sig. = N.S.		T value = 2.69 Sig. = <.01	

Table 21. (continued)

Comparison Variable	No. in Group[a]	Instrumental Mean	Instrumental St. Dev.	Expressive Mean	Expressive St. Dev.
Location:					
Urban	145	1.64	1.58	1.21	1.28
Rural	111	1.65	1.49	.86	1.10
		T value = -.85		T value = 2.69	
		Sig. = N.S.		Sig. = <.02	
Occupation:					
Blue Collar[b]	142	1.46	1.38	.96	1.18
White Collar	113	1.88	1.71	1.16	1.29
		T value = -2.17		T value = -1.24	
		Sig. = <.04		Sig. = N.S.	
Living Arrangement:					
Apartment/House/Home	225	1.67	1.56	1.02	1.22
Institution/Other	31	1.48	1.41	1.35	1.33
		T value = 0.67		T value = -1.34	
		Sig. = N.S.		Sig. = N.S.	
Education:					
College Graduate	50	2.14	1.83	1.44	1.22
Less than College Grad.	205	1.53	1.44	.96	1.23
		T value = 2.53		T value = 2.49	
		Sig. = <.02		Sig. = <.02	
Race:					
White American	227	1.56	1.56	1.03	1.24
Other	29	2.31	1.23	1.28	1.22
		T value = -3.00		T value = -1.02	
		Sig. = <.01		Sig. = N.S.	

Table 21. (continued)

Comparison Variable	No. in Group[a]	Instrumental Mean	Instrumental St. Dev.	Expressive Mean	Expressive St. Dev.
Marital Status:					
Married	162	1.86	1.63	.95	1.15
Not Married	94[c]	1.27	1.29	1.24	1.37
		T value = 3.04 Sig. = <.01		T value = -1.76 Sig. = N.S.	
Social Class:					
Upper/Upper Middle	125	1.86	1.55	1.32	1.31
Lower/Lower Middle	131	1.44	1.51	.80	1.11
		T value = 2.16 Sig. = <.02		T value = 3.46 Sig. = <.001	

[a] The numbers of cases is the total sample without any removal of cases with missing information.

[b] Homemakers were included in the blue collar classification.

[c] Single respondents were never married, widowed, divorced, or separated.

APPENDIX C

COMPARISON DATA
ON
LEARNING PROJECTS

Table 22. A Comparison of Summary Data from Six Research Studies on Learning Projects[a]

Data Description	Tough (N=66)	Coolican (N=48)	Johns (N=39)	McCatty (N=54)	Denys (N=40)	Older Adults (N=214)
Number of Learning Projects:						
Mean	8.3	4.2	8.4	11.1	4.8	3.3
Median	8.0	4.4	8.8	10.3	4.8	3.0
Range	0-20	1-9	1-22	2-31	1-12	1-9
Percent of Participation:	98%	100%	100%	100%	100%	83.5%
Number of Hours:						
Mean	816	244	1046	1244	430	325
Median	687	160	558	1058	376	237
Range	0-250.9	24-1012	31-6165	157-4233	20-1324	12-2300
Current Status of Projects:						
Active	66%	67%	75%	N.A.	N.A.	75%
Inactive/Completed	34%	33%	25%	N.A.	N.A.	25%
Learning for Credit:						
Credit	1%	1%	5%	1%	7%	4%
Non-credit	99%	99%	95%	99%	93%	96%
Planner Type:						
Self-planned	68%	66%	56%	76%	75%	55%
Group planned	12%	16%	16%	11%	11%	20%
One-to-one	8%	13%	9%	7%	6%	10%
Resource planned	3%	5%	19%	1%	4%	4%
Mixed	9%	--	--	5%	3%	10%

Table 22. (continued)

Data Description	Tough (N=66)	Coolican (N=48)	Johns (N=39)	McCatty (N=54)	Denys (N=40)	Older Adults (N=214)
Subject Matter Area:						
Occupational/Vocational	N.A.	7%	30%	55%	45%	16%
Personal/Family	N.A.	57%	23%	14%	22%	20%
Social/Civic	N.A.	8%	10%	9%	13%	9%
Self-Fulfillment	N.A.	27%	38%	22%	20%	54%
Subject Matter Source:						
Group or Instructor	N.A.	14%	N.A.	N.A.	N.A.	12%
Expert	N.A.	15%	N.A.	N.A.	N.A.	5%
Books, Pamphlets, Newspaper	N.A.	27%	N.A.	N.A.	N.A.	31%
Programmed Materials	N.A.	3%	N.A.	N.A.	N.A.	3%
TV/Radio/Recordings	N.A.	5%	N.A.	N.A.	N.A.	9%
Displays/Exhbits	N.A.	1%	N.A.	N.A.	N.A.	1%
Friends/Relatives	N.A.	23%	N.A.	N.A.	N.A.	7%
Mixed Sources	N.A.	11%	N.A.	N.A.	N.A.	31%

[a] For the sources see Footnote 31, Chapter II.